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P.O. Box 517
Sonoma, CA 95476
(707) 996.5201
www.worldproducts.com
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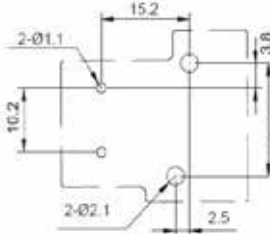
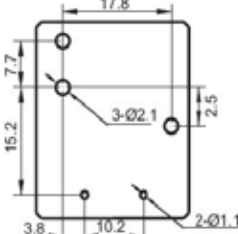
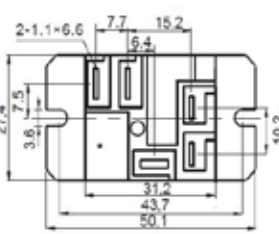


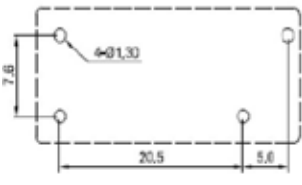
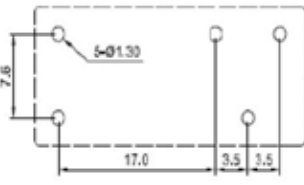
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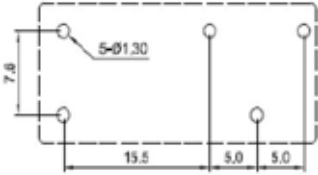
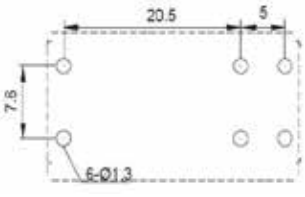
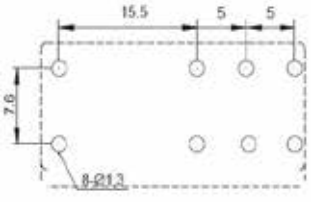
Wangrong Electronics (Shenzhen) Co., Ltd.
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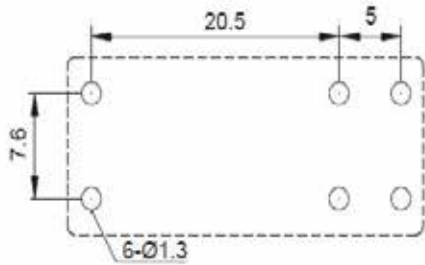
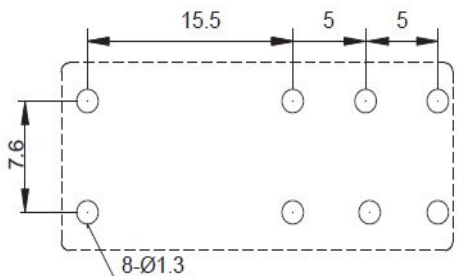
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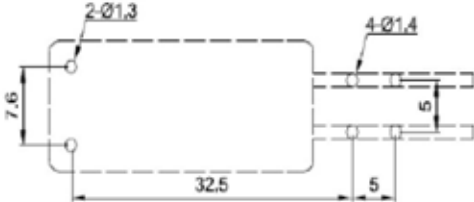
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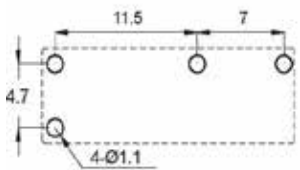
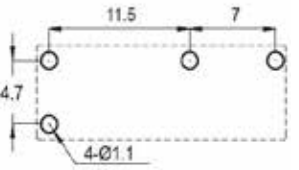
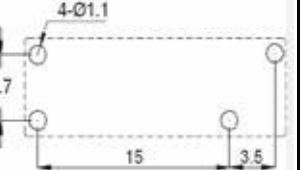
		10-30A PCB Relay		
Appearance				
Series		RA1	RA2	RA5
Characteristics		Rated current: 30A Without dust cover High capacity, high endurance Flux-proof type	Rated current: 30A #250 fast terminal High capacity, high endurance Flux-proof type	Rated current: 30A #250» fast terminl High capacity, high endurance Control switch has enough insulation distance
Contact configuration		1 Form A/C	1 Form A/C	1 Form A/C
Contact material		Ag alloy	Ag alloy	Ag alloy
Rated load(apply to resistive)		A Type: 30A 250VAC CType: N.O.:20A 250VAC N.C.: 10A 250VAC 2HP 240VAC	A Type: 30A 250VAC CType: N.O.:20A 250VAC N.C.: 10A 250VAC 2HP 240VAC	A Type: 30A 250VAC CType: N.O.:20A 250VAC N.C.: 10A 250VAC 2HP 240VAC
MIN. applicable load		100mA 5VDC	100mA 5VDC	100mA 5VDC
Coil voltage		DC: 5~24V	DC: 5~24V	DC: 5~24V
Coil power		D Type: 1,000mW L Type: 900mW	D Type: 1,000mW L Type: 900mW	D Type: 1,000mW L Type: 900mW
Mechanical life(no load)		1X10 ⁶ times	1X10 ⁶ times	1X10 ⁶ times
Electrical life		1X10 ⁵ times	1X10 ⁵ times	1X10 ⁵ times
Dilectric strength	Between contacts	1,500Vrms	1,500Vrms	1,500Vrms
	Coil & contact	2,500Vrms	2,500Vrms	2,500Vrms
	Surge resistive(initial)	4,000Vrms	4,000Vrms	4,000Vrms
Operating temperature		-40~+85°C	-40~+85°C	-40~+85°C
Sealed type		Flux-proof	Flux-proof	Flux-proof
Dimension L×W×H(mm)		32.0×27.0×20.0	32.3×27.2×21.0	50.1×27.3×27.7
Mounting		PCB	PCB & fast terminal	PCB & flange type
PC Board layout(mm) Bottom view				
Safety certificate		cULus,TUV,CQC	cULus,TUV,CQC	cULus,TUV,CQC
Weight(g)		26	29	32
Page		24		

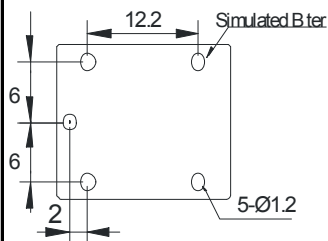
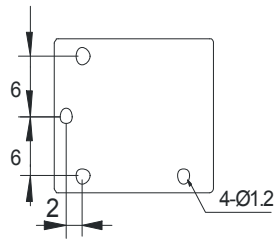
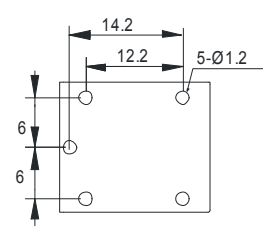
		8-20A PCB Relay		
Appearance				
Series		RB (1P)		
Characteristics		Rated current: 20A Flux-proof type Dielectric strength between coil&contact: 5,000VAC Class F coil	Rated current: 20A Flux-proof type Dielectric strength between coil&contact: 5,000VAC Class F coil	Rated current: 16A Flux-proof type Dielectric strength between coil&contact: 5,000VAC Class F coil
Contact configuration		1 Form A	1 Form A	1 Form C
Contact material		Ag alloy	Ag alloy	Ag alloy
Rated load(apply to resistive)		16A 277VAC 20A 250VAC 1/2HP 120VAC	16A 277VAC 20A 250VAC 1/2HP 120VAC	N.O.: 16A 277VAC N.C.: 8A 277VAC
MIN. applicable load		100mA 5VDC	100mA 5VDC	100mA 5VDC
Coil voltage		DC: 5~24V	DC: 5~24V	DC: 5~24V
Coil power		400mW	400mW	400mW
Mechanical life(no load)		1X10 ⁶ times	1X10 ⁶ times	1X10 ⁶ times
Electrical life		1X10 ⁵ times	1X10 ⁵ times	1X10 ⁵ times
Dilectric strength	Between contacts	1,000Vrms	1,000Vrms	1,000Vrms
	Coil & contact	5,000Vrms	5,000Vrms	5,000Vrms
	Surge resistive(initial)	7,000Vrms	7,000Vrms	7,000Vrms
Operating temperature		-40~+105°C	-40~+105°C	-40~+105°C
Sealed type		Flux-proof, washable	Flux-proof, washable	Flux-proof, washable
Dimension L×W×H(mm)		28.9×12.6×15.7	28.9×12.6×15.7	28.9×12.6×15.7
Mounting		PCB	PCB	PCB
PC Board layout(mm) Bottom view				
Safety certificate		cULus,TUV,CQC	cULus,TUV,CQC	cULus,TUV,CQC
Weight(g)		14	14	14
Page		28		

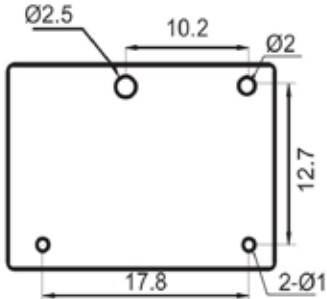
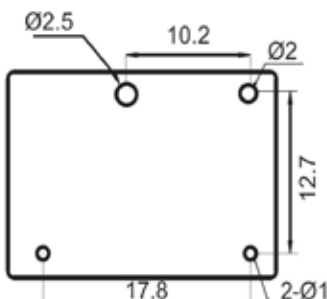
Appearance	8-20A PCB Relay		
			
Series	RB (1P)		
Characteristics	Rated current: 16A Flux-proof type Dielectric strength between coil&contact: 5,000VAC Class F coil	Rated current: 20A Flux-proof type Dielectric strength between coil&contact: 5,000VAC Class F coil	Rated current: 16A Flux-proof type Dielectric strength between coil&contact: 5,000VAC Class F coil
Contact configuration	1 Form C	1 Form A	1 Form C
Contact material	Ag alloy	Ag alloy	Ag alloy
Rated load(apply to resistive)	N.O.: 16A 277VAC N.C.: 8A 277VAC	16A 277VAC 20A 250VAC 1/2HP 120VAC	N.O.: 16A 277VAC N.C.: 8A 277VAC
MIN. applicable load	100mA 5VDC	100mA 5VDC	100mA 5VDC
Coil voltage	DC: 5~24V	DC: 5~24V	DC: 5~24V
Coil power	400mW	400mW	400mW
Mechanical life(no load)	1X10 ⁶ times	1X10 ⁶ times	1X10 ⁶ times
Electrical life	1X10 ⁵ times	1X10 ⁵ times	1X10 ⁵ times
Dilectric strength	Between contacts	1,000Vrms	1,000Vrms
	Coil & contact	5,000Vrms	5,000Vrms
	Surge resistive(initial)	7,000Vrms	7,000Vrms
Operating temperature	-40~+105°C	-40~+105°C	-40~+105°C
Sealed type	Flux-proof, washable	Flux-proof, washable	Flux-proof, washable
Dimension L×W×H(mm)	28.9×12.6×15.7	28.9×12.6×15.7	28.9×12.6×15.7
Mounting	PCB	PCB	PCB
PC Board layout(mm) Bottom view			
Safety certificate	cULus,TUV,CQC	cULus,TUV,CQC	cULus,TUV,CQC
Weight(g)	14	14	14
Page	28		

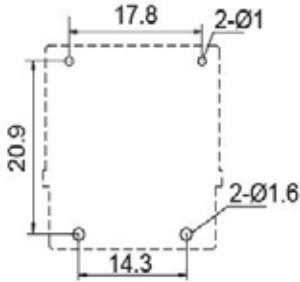
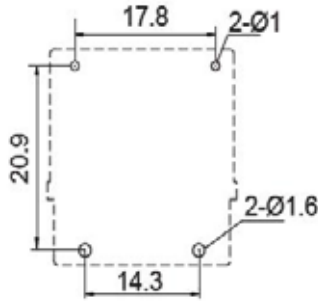
		4-8A PCB Relay	
Appearance			
Series		RB (2P)	
Characteristics		Rated current: 8A Flux-proof type Dielectric strength between coil&contact: 5,000VAC Class F coil	Rated current: 8A Flux-proof type Dielectric strength between coil&contact: 5,000VAC Class F coil
Contact configuration		2 Form A	2 Form C
Contact material		Ag alloy	Ag alloy
Rated load(apply to resistive)		8A 277VAC 1/4HP 120VAC	N.O.: 8A 277VAC N.C.: 4A 277VAC
MIN. applicable load		100mA 5VDC	100mA 5VDC
Coil voltage		DC: 5~24V	DC: 5~24V
Coil power		400mW	400mW
Mechanical life(no load)		1X10 ⁶ times	1X10 ⁶ times
Electrical life		1X10 ⁵ times	1X10 ⁵ times
Dielectric Strength	Between contacts	Homopolar: 1,000Vrms Heterospolar: 2,500Vrms	Homopolar: 1,000Vrms Heterospolar: 2,500Vrms
	Coil & contact	5,000Vrms	5,000Vrms
	Surge resistive(initial)	7,000Vrms	7,000Vrms
Operating temperature		-40~+105°C	-40~+105°C
Sealed type		Flux-proof, washable	Flux-proof, washable
Dimension L×W×H(mm)		28.9×12.6×15.7	28.9×12.6×15.7
Mounting		PCB	PCB
PC Board layout(mm) Bottom view			
Safety certificate		cULus,TUV,CQC	cULus,TUV,CQC
Weight(g)		14	14
Page		28	

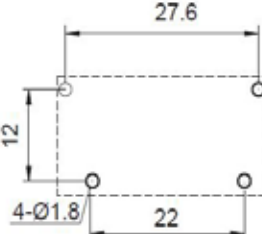
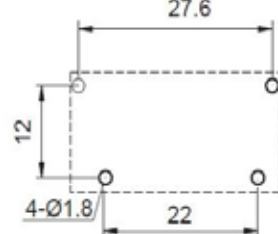
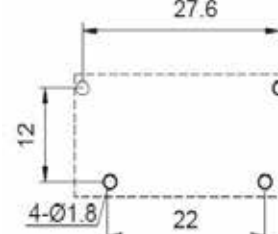
		20A PCB Relay	
Appearance			
Series		RBF	
Characteristics		Rated current: 20A #250 fast terminal Dielectric strength between coil&contact: 5,000VAC Class F coil	Rated current: 20A #250 fast terminal Dielectric strength between coil&contact: 5,000VAC Class F coil
Contact configuration		1 Form A	1 Form B
Contact material		Ag alloy	Ag alloy
Rated load(apply to resistive)		20A 250VAC 16A 277VAC	20A 250VAC 16A 277VAC
MIN. applicable load		100mA 5VDC	100mA 5VDC
Coil voltage		DC: 5~24V	DC: 5~24V
Coil power		400mW	400mW
Mechanical life(no load)		1X10 ⁶ times	1X10 ⁶ times
Electrical life		1X10 ⁵ times	1X10 ⁵ times
Dielectric strength	Between contacts	1,000Vrms	1,000Vrms
	Coil & contact	5,000Vrms	5,000Vrms
	Surge resistive(initial)	7,000Vrms	7,000Vrms
Operating temperature		-40~+105°C	-40~+105°C
Sealed type		Flux-proof, washable	Flux-proof, washable
Dimension L×W×H(mm)		40.5(48.4)×12.7×16.0	40.5(48.4)×12.7×16.0
Mounting		PCB & fast terminal	PCB & fast terminal
PC Board layout(mm) Bottom view			
Safety certificate		cULus	cULus
Weight(g)		14	14
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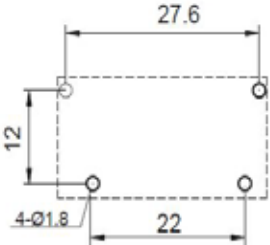
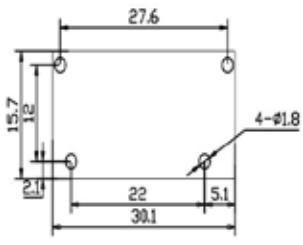
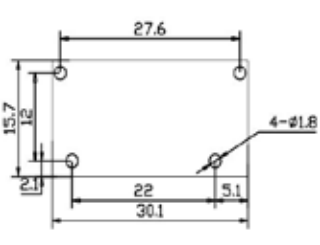
Appearance		3-5A PCB Relay		
				
Series		RC (Standard type)	RC (Standard type)	RC (A type)
Characteristics		Rated current: 3A 200mW high sensitivity Washable & high performance 7mm ultra-thin relay Meets IEC 60079 Anti-Explosion standard	Rated current: 5A 200mW high sensitivity Washable & high performance 7mm ultra-thin relay Meets IEC 60079 Anti-Explosion standard	Rated current: 5A 200mW high sensitivity Washable & high performance 7mm ultra-thin relay Meets IEC 60079 Anti-Explosion standard
Contact configuration		1 Form A	1 Form A	1 Form A
Contact material		Ag alloy	Ag alloy	Ag alloy
Rated load(apply to resistive)		3A 250VAC 3A 30VDC 1/8HP 240VAC	5A 250VAC 5A 30VDC 1/8HP 240VAC	3A 250VAC 3A 30VDC 5A 250VAC 5A 30VDC 1/8HP 240VAC
MIN. applicable load		100mA 5VDC	100mA 5VDC	100mA 5VDC
Coil voltage		DC: 5~24V	DC: 5~24V	DC: 5~24V
Coil power		200mW	200mW	200mW
Mechanical life(no load)		1X10 ⁶ times	1X10 ⁶ times	1X10 ⁶ times
Electrical life		1X10 ⁵ times	1X10 ⁵ times	1X10 ⁵ times
Dilectric strength	Between contacts	750Vrms	750Vrms	750Vrms
	Coil & contact	4,000Vrms	4,000Vrms	4,000Vrms
	Surge resistive(initial)	5,000Vrms	5,000Vrms	5,000Vrms
Operating temperature		-40~+85°C	-40~+85°C	-40~+85°C
Sealed type		Flux-proof, washable	Flux-proof, washable	Flux-proof, washable
Dimension L×W×H(mm)		20.4×7.0×15.1	20.4×7.0×15.1	20.4×7.0×15.1
Mounting		PCB	PCB	PCB
PC Board layout(mm) Bottom view				
Safety certificate		cULus,TUV,CQC,VDE	cULus,TUV,CQC,VDE	cULus,TUV,CQC,VDE
Weight(g)		3	3	3
Page		34		

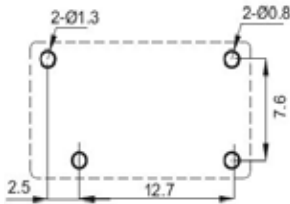
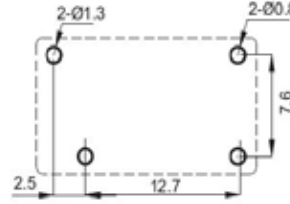
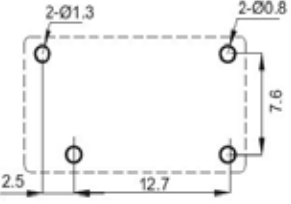
		3-15A PCB Relay		
Appearance				
Series		RD (5 pins)	RD (4 pins)	RD (Form C)
Characteristics		Rated current: 15A Compact design Class F Coil TV load is available Flux-proof type	Rated current: 15A Compact design Class F Coil TV load is available Flux-proof type	Rated current: 15A Compact design Class F Coil Flux-proof type
Contact configuration		1 Form A	1 Form A	1 Form C
Contact material		Ag alloy	Ag alloy	Ag alloy
Rated load(apply to resistive)		15A 277VAC 10A 277VAC TV-5 250VAC 1/4HP 240VAC	15A 277VAC 10A 277VAC TV-5 250VAC 1/4HP 240VAC	10A 277VAC 15A 250VAC N.O.: 7A 277VAC N.C.: 3A 277VAC
MIN. applicable load		100mA 5VDC	100mA 5VDC	100mA 5VDC
Coil voltage		DC: 5~24V	DC: 5~24V	DC: 5~24V
Coil power		360mW	360mW	360mW
Mechanical life(no load)		1X10 ⁶ times	1X10 ⁶ times	1X10 ⁶ times
Electrical life		1X10 ⁵ times	1X10 ⁵ times	1X10 ⁵ times
Dilectric strength	Between contacts	750Vrms	750Vrms	750Vrms
	Coil & contact	1,500Vrms	1,500Vrms	1,500Vrms
	Surge resistive(initial)	2,500Vrms	2,500Vrms	2,500Vrms
Operating temperature		-40~+105°C	-40~+105°C	-40~+105°C
Sealed type		Flux-proof, washable	Flux-proof, washable	Flux-proof, washable
Dimension L×W×H(mm)		19.0×15.5×16.0	19.0×15.5×16.0	19.0×15.5×16.0
Mounting		PCB	PCB	PCB
PC Board layout(mm) Bottom view				
Safety certificate		cULus,TUV,CQC	cULus,TUV,CQC	cULus,TUV,CQC
Weight(g)		9	9	9
Page		37		

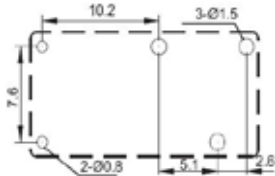
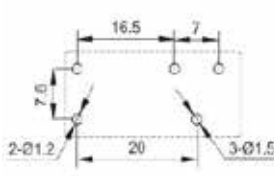
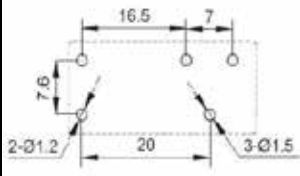
		10~16A PCB Relay	
Appearance			
Series		RE (10A)	RE (16A)
Characteristics		Rated current: 10A Low shape Low power consumption 200mW high sensitivity type	Rated current: 16A Low shape Low power consumption 200mW high sensitivity type
Contact configuration		1 Form A	1 Form A
Contact material		Ag alloy	Ag alloy
Rated load(apply to resistive)		10A 250VAC 10A 30VDC 1/3HP 240VAC	15A 250VAC 16A 250VAC 1/3HP 240VAC
MIN. applicable load		100mA 5VDC	100mA 5VDC
Coil voltage		DC: 5~24V	DC: 5~24V
Coil power		200mW	200mW
Mechanical life(no load)		1X10 ⁶ times	1X10 ⁶ times
Electrical life		1X10 ⁵ times	1X10 ⁵ times
Dielectric strength	Between contacts	1,000Vrms	1,000Vrms
	Coil & contact	2,000Vrms	2,000Vrms
	Surge resistive(initial)	5,000Vrms	5,000Vrms
Operating temperature		-40~+105℃	-40~+105℃
Sealed type		Flux-proof, washable	Flux-proof, washable
Dimension L×W×H(mm)		23.0×16.1×10.2	23.0×16.1×10.2
Mounting		PCB	PCB
PC Board layout(mm) Bottom view			
Safety certificate		cULus,TUV,CQC	cULus,TUV,CQC
Weight(g)		9	9
Page		40	

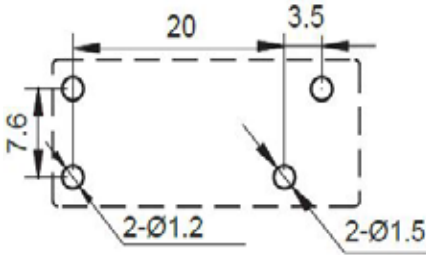
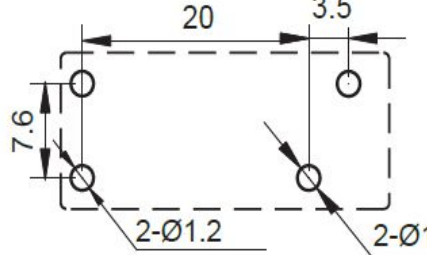
		10~15A PCB Relay	
Appearance			
Series		REF (10A)	REF (15A)
Characteristics		Rated current: 10A Low shape #187 fast terminal 200mW high sensitivity type	Rated current: 15A Low shape #187 fast terminal 200mW high sensitivity type
Contact configuration		1 Form A	1 Form A
Contact material		Ag alloy	Ag alloy
Rated load(apply to resistive)		10A 250VAC 10A 30VDC 1/3HP 240VAC	15A 250VAC 1/3HP 240VAC
MIN. applicable load		100mA 5VDC	100mA 5VDC
Coil voltage		DC: 5~24V	DC: 5~24V
Coil power		200mW	200mW
Mechanical life(no load)		1X10 ⁶ times	1X10 ⁶ times
Electrical life		1X10 ⁵ times	1X10 ⁵ times
Dielectric strength	Between contacts	1,000Vrms	1,000Vrms
	Coil & contact	2,000Vrms	2,000Vrms
	Surge resistive(initial)	5,000Vrms	5,000Vrms
Operating temperature		-40~+105°C	-40~+105°C
Sealed type		Flux-proof, washable	Flux-proof, washable
Dimension L×W×H(mm)		24.5×23.6×10.2	24.5×23.6×10.2
Mounting		PCB & fast terminal	PCB & fast terminal
PC Board layout(mm) Bottom view			
Safety certificate		cULus,TUV,CQC	cULus,TUV,CQC
Weight(g)		10	10
Page		40	

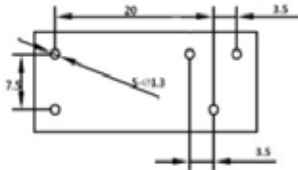
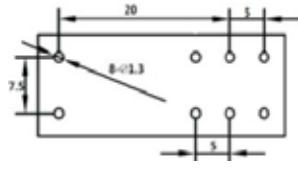
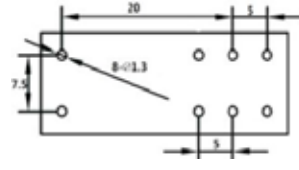
		16-25A PCB Relay		
Appearance				
Series		RF (16A)	RF (20A)	RF (25A)
Characteristics		Rated current: 16A #250 fast terminal High capacity, high endurance Class F Coil Meets the Anti-Explosion standard of IEC 60079	Rated current: 20A #250 fast terminal High capacity, high endurance Class F Coil Meets the Anti-Explosion standard of IEC 60079	Rated current: 25A #250 fast terminal High capacity, high endurance Class F Coil Meets the Anti-Explosion standard of IEC 60079
Contact configuration		1 Form A	1 Form A	1 Form A
Contact material		Ag alloy	Ag alloy	Ag alloy
Rated load(apply to resistive)		16A 250VAC	20A 250VAC 2HP 240VAC 20A 277VAC 1-1/2HP 277VAC	25A 250VAC 25A 277VAC
MIN. applicable load		100mA 5VDC	100mA 5VDC	100mA 5VDC
Coil voltage		DC: 5~24V	DC: 5~24V	DC: 5~24V
Coil power		900mW	900mW	900mW
Mechanical life(no load)		1X10 ⁶ times	1X10 ⁶ times	1X10 ⁶ times
Electrical life		1X10 ⁵ times	1X10 ⁵ times	1X10 ⁵ times
Dilelectric strength	Between contacts	1,000Vrms	1,000Vrms	1,000Vrms
	Coil & contact	4,500Vrms	4,500Vrms	4,500Vrms
	Surge resistive(initial)	10,000Vrms	10,000Vrms	10,000Vrms
Operating temperature		-40~+85°C	-40~+85°C	-40~+85°C
Sealed type		Flux-proof	Flux-proof	Flux-proof
Dimension L×W×H(mm)		30.1×15.7×23.3	30.1×15.7×23.3	30.1×15.7×23.3
Mounting		PCB & fast terminal	PCB & fast terminal	PCB & fast terminal
PC Board layout(mm) Bottom view				
Safety certificate		CQC	cULus,TUV,CQC	cULus,CQC,VDE,TUV
Weight(g)		21	22	22
Page		43		

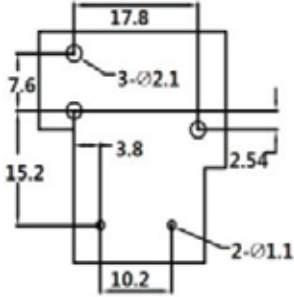
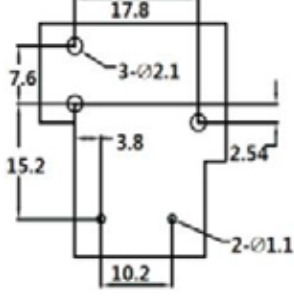
		16-25A PCB Relay		
Appearance				
Series		RF (P Type)	RFL (20A)	RFL (25A)
Characteristics		Rated current: 25A High capacity, high endurance Class F Coil Meets the Anti-Explosion standard of IEC 60079	Rated current: 20A #250 fast terminal High capacity, high endurance Class F Coil	Rated current: 25A #250 fast terminal High capacity, high endurance Class F Coil
Contact configuration		1 Form A	1 Form A	1 Form A
Contact material		Ag alloy	Ag alloy	Ag alloy
Rated load(apply to resistive)		25A 250VAC 20A 250VAC 25A 277VAC 20A 277VAC 2HP 250VAC 16A 250VAC	20A 250VAC 2HP 240VAC 20A 277VAC 1-1/2HP 277VAC	25A 250VAC 25A 277VAC
MIN.applicable load		100mA 5VDC	100mA 5VDC	100mA 5VDC
Coil voltage		DC: 5~24V	DC: 5~24V	DC: 5~24V
Coil power		900mW	900mW	900mW
Mechanical life(no load)		1X10 ⁶ times	1X10 ⁶ times	1X10 ⁶ times
Electrical life		1X10 ⁵ times	1X10 ⁵ times	1X10 ⁵ times
Dilelectric strength	Between contacts	1,000Vrms	1,000Vrms	1,000Vrms
	Coil & contact	4,500Vrms	4,500Vrms	4,500Vrms
	Surge resistive(initial)	10,000Vrms	10,000Vrms	10,000Vrms
Operating temperature		-40~+85℃	-40~+85℃	-40~+85℃
Sealed type		Flux-proof	Flux-proof	Flux-proof
Dimension L×W×H(mm)		30.1×15.7×23.3	30.1X15.7X32.8	30.1X15.7X32.8
Mounting		PCB	PCB & fast terminal	PCB & fast terminal
PC Board layout(mm) Bottom view				
Safety certificate		cULus,TUV,CQC,VDE	cULus,TUV,CQC	cULus,CQC,TUV,VDE
Weight(g)		20	30	30
Page		43	46	

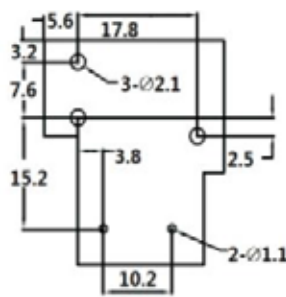
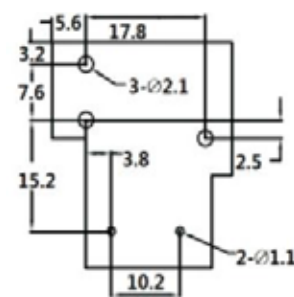
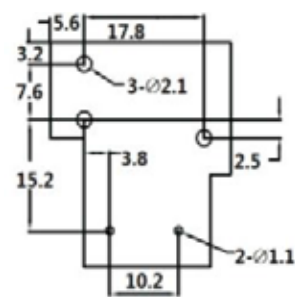
		5-10A PCB Relay		
Appearance				
Series		RJ (5A)	RJ (8A)	RJ (10A)
Characteristics		Rated current: 5A High sensitivity type Dielectric strength between coil&contact: 4,000VAC Class F Coil Meets IEC 60079 Anti-Explosion standard	Rated current: 8A Dielectric strength between coil&contact: 4,000VAC Class F Coil Meets IEC 60079 Anti-Explosion standard	Rated current: 10A Dielectric strength between coil&contact: 4,000VAC Class F Coil Meets IEC 60079 Anti-Explosion standard
Contact configuration		1 Form A	1 Form A	1 Form A
Contact material		Ag alloy	Ag alloy	Ag alloy
Rated load(apply to resistive)		5A 250VAC 5A 277VAC 1/3HP 240VAC 1/6HP 277VAC	8A 250VAC 8A 277VAC	10A 250VAC 5A 30VDC 1/3HP 240VAC 10A 277VAC
MIN. applicable load		100mA 5VDC	100mA 5VDC	100mA 5VDC
Coil voltage		DC: 5~24V	DC: 5~24V	DC: 5~24V
Coil power		D Type 450mW	D Type 450mW	D Type 450mW
		L Type 200mW	L Type 200mW	L Type 200mW
Mechanical life(no load)		1X10 ⁶ times	1X10 ⁶ times	1X10 ⁶ times
Electrical life		1X10 ⁵ times	1X10 ⁵ times	1X10 ⁵ times
Dilectric strength	Between contacts	1,000Vrms	1,000Vrms	1,000Vrms
	Coil & contact	4,000Vrms	4,000Vrms	4,000Vrms
	Surge resistive(initial)	5,000Vrms	5,000Vrms	5,000Vrms
Operating temperature		-40~+85℃	-40~+85℃	-40~+85℃
Sealed type		Flux-proof, washable	Flux-proof, washable	Flux-proof, washable
Dimension L×W×H(mm)		18.2×10.2×15.5	18.2×10.2×15.5	18.2×10.2×15.5
Mounting		PCB	PCB	PCB
PC Board layout(mm) Bottom view				
Safety certificate		cULus,TUV,CQC	cULus,TUV,CQC	cULus,TUV,CQC
Weight(g)		6	6	6
Page		49		

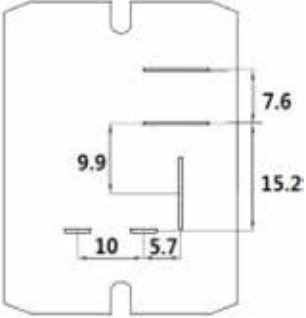
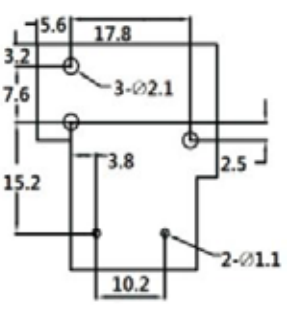
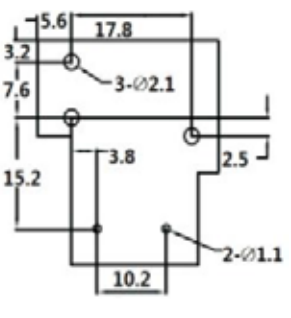
		3-20A PCB Relay		
Appearance				
Series		RJE	RMI (1P)	RMIH
Characteristics		Rated current: 10A 200mW high sensitivity type Dielectric strength between coil&contact: 4,000VAC Class F Coil Meets IEC 60079 Anti-Explosion standard	Rated current: 10A Flux-proof Type Dielectric Strength between coil&contact: 5,000VAC Class F Coil	Rated current: 16A High capacity, high endurance Dielectric Strength between coil&contact: 5,000VAC Class F Coil Meets IEC 60079 Anti-Explosion standard
Contact configuration		1 Form A/C	1 Form A/C	1 Form A/C
Contact material		Ag alloy	Ag alloy	Ag alloy
Rated load(apply to resistive)		A Type: 10A 125VAC 5A 277VAC 10 30VDC D Type: N.O. 5A 277VAC N.C. 3A 277VAC	A Type: 10A 277VAC 1/4HP250VAC C Type: N.O. 10A277VAC N.C.5A 277VAC	A Type: 16A 277VAC 1/3HP250VAC C Type: N.O.: 16A277VAC N.C.: 8A 277VAC
MIN. applicable load		100mA 5VDC	100mA 5VDC	100mA 5VDC
Coil voltage		DC: 5~24V	DC: 5~24V	DC: 5~24V
Coil power		D Type: 400mW L Type: 200mW	D Type: 720mW L Type: 540mW	D Type: 720mW L Type: 540mW
Mechanical life(no load)		1X10 ⁶ times	1X10 ⁶ times	1X10 ⁶ times
Electrical life		1X10 ⁵ times	1X10 ⁵ times	1X10 ⁵ times
Dilelectric strength	Between contacts	1,000Vrms	1,000Vrms	1,000Vrms
	Coil & contact	4,000Vrms	5,000Vrms	5,000Vrms
	Surge resistive(initial)	5,000Vrms	10,000Vrms	10,000Vrms
Operating temperature		-40~+105°C	-40~+105°C	-40~+105°C
Sealed type		Flux-proof, washable	Flux-proof, washable	Flux-proof, washable
Dimension L×W×H(mm)		20×10×15.2	29.2×12.8×20.6	29.2×12.8×20.6
Mounting		PCB	PCB	PCB
PC Board layout(mm) Bottom view				
Safety certificate		cULus,TUV,CQC	cULus,TUV,CQC	cULus,TUV,CQC
Weight(g)		7	14	14
Page		51	54	57

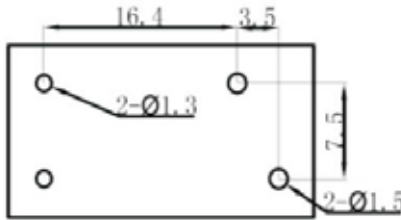
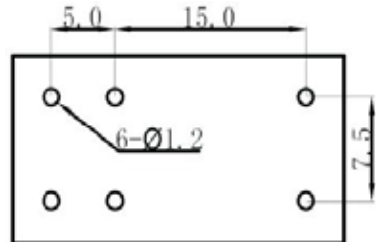
		16-20A PCB Relay	
Appearance			
Series		RMIF	RMIF
Characteristics		Rated current: 20A #187 Fast Terminal Dielectric strength between coil&contact: 5,000VAC Class F coil	Rated current: 20A Without fast terminal Dielectric strength between coil&contact: 5,000VAC Class F coil
Contact configuration		1 Form A	1 Form A
Contact material		Ag alloy	Ag alloy
Rated load(apply to resistive)		20A 125VAC 17A 277VAC 16A 277VAC	20A 125VAC 17A 277VAC 16A 277VAC
MIN. applicable load		100mA 5VDC	100mA 5VDC
Coil voltage		DC: 5~24V	DC: 5~24V
Coil power		D: 720mW L: 540mW	D: 720mW L: 540mW
Mechanical life(no load)		1X10 ⁶ times	1X10 ⁶ times
Electrical life		1X10 ⁵ times	1X10 ⁵ times
Dielectric strength	Between contacts	1,000Vrms	1,000Vrms
	Coil & contact	5,000Vrms	5,000Vrms
	Surge resistive(initial)	10,000Vrms	10,000Vrms
Operating temperature		-40~+105°C	-40~+105°C
Sealed type		Flux-proof	Flux-proof
Dimension L×W×H(mm)		29.0×12.6×23.8	29.0×12.6×23.8
Mounting		PCB & fast terminal	PCB
PC Board layout(mm) Bottom view			
Safety certificate		cULus,TUV,CQC	cULus,TUV
Weight(g)		16	15
Page		60	

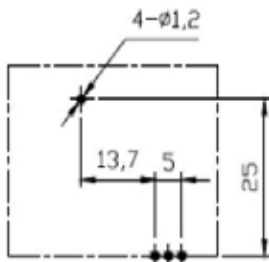
		5-20A PCB Relay		
Appearance				
Series		R42 (1P)	R42 (2P)	R42-T
Characteristics		Rated current: 12A TV rated available Standard type & high sensitivity type	Rated current: 5A TV rated available Standard type & high sensitivity type	Rated current: 20A TV rated available Standard type & high sensitivity type
Contact configuration		1 Form A/C	2 Form A/C	1 Form A/C-T
Contact material		Ag alloy	Ag alloy	Ag alloy
Rated load(apply to resistive)		12A 250VAC 12A 30VDC N.O.: TV-3 120VAC N.O.: TV-5 125VAC	5A 250VAC 5A 30VDC N.O.: 7A 250VAC N.O.: TV-3 120VAC	16A 250VAC 20A 125VAC N.O.: TV-3 120VAC N.O.: TV-8 125VAC
MIN. applicable load		100mA 5VDC	100mA 5VDC	100mA 5VDC
Coil voltage		D Type: DC: 3~110V A Type: AC: 6~240V	D Type: DC: 3~110V A Type: AC: 6~240V	D Type: DC: 3~110V A Type: AC: 6~240V
Coil power		D Type: 720mW L Type: 530mW A Type: 0.9VA~1.2VA	D Type: 720mW L Type: 530mW A Type: 0.9VA~1.2VA	D Type: 720mW L Type: 530mW A Type: 0.9VA~1.2VA
Mechanical life(no load)		1X10 ⁶ times	1X10 ⁶ times	1X10 ⁶ times
Electrical life		1X10 ⁵ times	1X10 ⁵ times	1X10 ⁵ times
Dilectric strength	Between contacts	1,000Vrms	Homopolar: 1,000Vrms Heterospolar: 2,500Vrms	1,000Vrms
	Coil & contact	5,000Vrms	5,000Vrms	5,000Vrms
	Surge resistive(initial)	7,000Vrms	7,000Vrms	7,000Vrms
Operating temperature		-40~+85°C	-40~+85°C	-40~+85°C
Sealed type		Flux-proof, washable	Flux-proof, washable	Flux-proof, washable
Dimension L×W×H(mm)		29.4×12.6×25.6	29.4×12.6×25.6	29.4×12.6×25.6
Mounting		PCB	PCB	PCB
PC Board layout(mm) Bottom view				
Safety certificate		cULus,TUV	cULus,TUV	cULus,TUV
Weight(g)		17	17	17
Page		63		

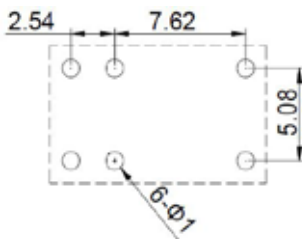
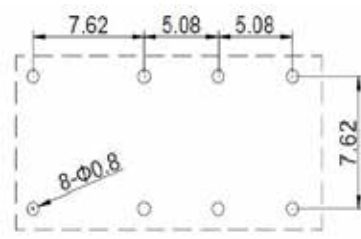
		30A -40APCB Relay	
Appearance			
Series		R53	R53G
Characteristics		Rated current: 30A Without dust cover Class F Coil	Rated current: 40A Washable type Class F Coil
Contact configuration		1 Form A/C	1 Form A/C
Contact material		Ag alloy	Ag alloy
Rated load(apply to resistive)		1 Form A: 30A 250VAC 1 Form C: N.O.: 30A 240VAC N.C.: 20A 240VAC	1 Form A: 40A 250VAC 30A 250VAC 1 Form C: N.O.: 30A 240VAC N.C.: 20A 240VAC
MIN. applicable load		100mA 5VDC	100mA 5VDC
Coil voltage		D Type: DC:5~48V A Type: AC: 6~220V	D Type: DC:5~48V A Type: AC: 6~220V
Coil power		D Type: 900mW A Type: 1.2VA~1.8VA	D Type: 900mW A Type: 1.2VA~1.8VA
Mechanical life(no load)		1X10 ⁶ times	1X10 ⁶ times
Electrical life		1X10 ⁵ times	1X10 ⁵ times
Dielectric strength	Between contacts	1,000Vrms	1,000Vrms
	Coil & contact	2,500Vrms	2,500Vrms
	Surge resistive(initial)	4,000Vrms	4,000Vrms
Operating temperature		-40~+85°C	-40~+85°C
Sealed type		Without dust cover	Flux-proof, washable
Dimension L×W×H(mm)		27.5×24.1×14.9	31.8×27.4×19.7
Mounting		PCB	PCB
PC Board layout(mm) Bottom view			
Safety certificate		cULus,TUV,CQC	cULus,TUV,CQC
Weight(g)		25	25
Page		66	

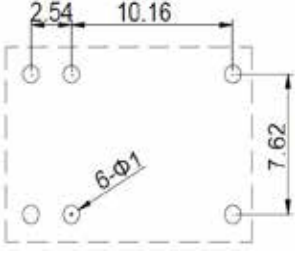
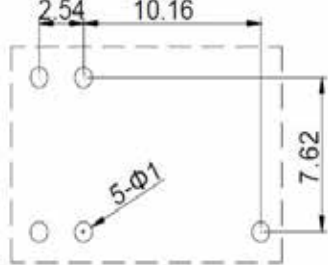
		30A PCB Relay		
Appearance				
Series		R53A	R53B	R53E
Characteristics		Rated current: 30A PCB&fast terminal type Class F Coil	Rated current: 30A PCB&fast terminal type Class F Coil	Rated current: 30A PCB&fast terminal type Class F Coil
Contact configuration		1 Form A/C	1 Form A/C	1 Form A/C
Contact material		Ag alloy	Ag alloy	Ag alloy
Rated load(apply to resistive)		1 Form A: 30A 250VAC 1FormC: N.O.: 30A 240VAC N.C.: 20A 240VAC	1 Form A: 30A 250VAC 1FormC: N.O.: 30A 240VAC N.C.: 20A 240VAC	1 Form A: 30A 250VAC 1FormC: N.O.: 30A 240VAC N.C.: 20A 240VAC
MIN. applicable load		100mA 5VDC	100mA 5VDC	100mA 5VDC
Coil voltage		D Type: DC: 5~48V A Type: AC: 6~220V	D Type: DC: 5~48V A Type: AC: 6~220V	D Type: DC: 5~48V A Type: AC: 6~220V
Coil power		D Type: 900mW A Type: 1.2VA~1.8VA	D Type: 900mW A Type: 1.2VA~1.8VA	D Type: 900mW A Type: 1.2VA~1.8VA
Mechanical life(no load)		1X10 ⁶ times	1X10 ⁶ times	1X10 ⁶ times
Electrical life		1X10 ⁵ times	1X10 ⁵ times	1X10 ⁵ times
Dielectric strength	Between contacts	1,000Vrms	1,000Vrms	1,000Vrms
	Coil & contact	2,500Vrms	2,500Vrms	2,500Vrms
	Surge resistive(initial)	4,000Vrms	4,000Vrms	4,000Vrms
Operating temperature		-40~+85°C	-40~+85°C	-40~+85°C
Sealed type		Flux-proof, washable	Flux-proof, washable	Flux-proof, washable
Dimension L×W×H(mm)		32.1×27.4×27.8	32.1×27.4×19.8	32.1×27.4×20.1
Mounting		PCB&fast terminal	PCB&fast terminal	PCB&fast terminal
PC Board layout(mm) Bottom view				
Safety certificate		cULus,TUV,CQC	cULus,TUV,CQC	cULus,TUV,CQC
Weight(g)		30	28	28
Page			66	

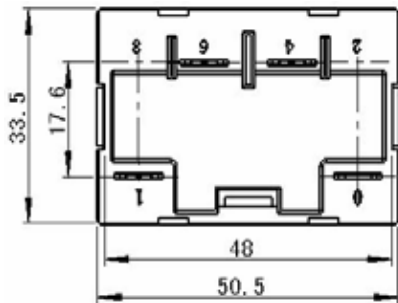
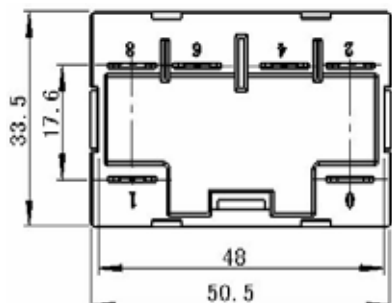
		30A PCB Relay		
Appearance				
Series		R53M	R53K	R53E1
Characteristics		Rated current: 30A Fast terminal Class F Coil	Rated current: 30A PCB&fast terminal type Class F Coil	Rated current: 30A PCB&fast terminal type Class F Coil
Contact configuration		1 Form A/C	1 Form A/C	1 Form A/C
Contact material		Ag alloy	Ag alloy	Ag alloy
Rated load(apply to resistive)		1 Form A: 30A 250VAC 1FormC:N.O.:30A 240VAC N.C.: 20A 240VAC	1 Form A: 30A 250VAC 1FormC:N.O.:30A 240VAC N.C.: 20A 240VAC	1 Form A: 30A 250VAC 1FormC:N.O.:30A 240VAC N.C.: 20A 240VAC
MIN. applicable load		100mA 5VDC	100mA 5VDC	100mA 5VDC
Coil voltage		D Type: DC:5~48V A Type: AC:6~220V	D Type: DC:5~48V A Type: AC:6~220V	D Type: DC:5~48V A Type: AC:6~220V
Coil power		D Type: 900mW A Type: 1.2VA~1.8VA	D Type: 900mW A Type: 1.2VA~1.8VA	D Type: 900mW A Type: 1.2VA~1.8VA
Mechanical life(no load)		1X10 ⁶ times	1X10 ⁶ times	1X10 ⁶ times
Electrical life		1X10 ⁵ times	1X10 ⁵ times	1X10 ⁵ times
Dielectric strength	Between contacts	1,000Vrms	1,000Vrms	1,000Vrms
	Coil & contact	2,500Vrms	2,500Vrms	2,500Vrms
	Surge resistive(initial)	4,000Vrms	4,000Vrms	4,000Vrms
Operating temperature		-40~+85°C	-40~+85°C	-40~+85°C
Sealed type		Flux-proof, washable	Flux-proof, washable	Flux-proof, washable
Dimension L×W×H(mm)		50×27.4×27.8	32.1×27.4×27.8	32.1×27.4×20.1
Mounting		Fast terminal	PCB&fast terminal	PCB&fast terminal
PC Board layout(mm) Bottom view				
Safety certificate		cULus,TUV,CQC	cULus,TUV,CQC	cULus,TUV,CQC
Weight(g)		30	28	28
Page		66		

		5-10A PCB Relay	
Appearance			
Series		R81 (1P)	R81 (2P)
Characteristics		Rated current: 10A highly reliable performance TV rated available	Rated current: 5A 2 Form A ultra-thin relay TV rated available
Contact configuration		1 Form A	2 Form A
Contact material		Ag alloy	Ag alloy
Rated load(apply to resistive)		10A 250VAC 10A 30VDC TV-5 250VAC TV-8 250VAC	5A 125VAC 3A 125VAC 8A 50VAC 5A 50VAC
MIN. applicable load		100mA 5VDC	100mA 5VDC
Coil voltage		D Type: DC: 3~48V L Type: DC: 3~48V	D Type: DC: 3~48V L Type: DC: 3~48V
Coil power		D Type: 540mW L Type: 250mW	D Type: 540mW L Type: 250mW
Mechanical life(no load)		1X10 ⁶ times	1X10 ⁶ times
Electrical life		1X10 ⁵ times	1X10 ⁵ times
Dielectric strength	Between contacts	1,000Vrms	Homopolar: 1,000Vrms Heterospolar: 2,500Vrms
	Coil & contact	4,000Vrms	4,000Vrms
	Surge resistive(initial)	4,000Vrms	4,000Vrms
Operating temperature		-40~+85°C	-40~+85°C
Sealed type		Flux-proof, washable	Flux-proof, washable
Dimension L×W×H(mm)		24×10×25	24×12.8×24.6
Mounting		PCB	PCB
PC Board layout(mm) Bottom view			
Safety certificate		cULus	cULus
Weight(g)		10	15
Page		72	

Appearance		60-120A PCB Relay
		
Series		RM
Characteristics		Only needs pulsed excitation, single or double coils available Manual-switch controled High capacity, can be switched to 60A, 80A, 90A, 100A, 120A Low power, small volume If requires, welding accessories is available
Contact configuration		1 Form A/B
Contact material		Ag alloy
Rated load(apply to resistive)		120A 250VAC 100A 250VAC 90A 250VAC 80A 250VAC 60A 250VAC
MIN. applicable load		1A 24VDC
Coil voltage		DC: 6~48V
Coil power		Single Coil: 1000/1500/2400mW Double Coils: 2000/3000/4800mW
Mechanical life(no load)		1X10 ⁵ times
Electrical life		1X10 ⁴ times
Dielectric strength	Between contacts	1,500Vrms
	Coil & contact	4,000Vrms
	surge resistive(initial)	10,000Vrms
Operating temperature		-30~+70℃
Sealed type		Flux-proof
Dimension L×W×H(mm)		39×16.8×31
Mounting		PCB & Socket Installation
PC Board layout(mm) Bottom view		
Safety certificate		CE
Weight(g)		49
Page		75

		0.5-1A Signal Relay	
Apperance			
Series		RSA	RSB (2P)
Characteristics		Rated current: 0.5A High sensitivity Dielectric strength between coil&contact: 1,000VAC Class F coil	Rated current: 1A High sensitivity Dielectric strength between coil&contact: 1,000VAC Class F coil
Contact configuration		1 Form C	2 Form C
Contact material		Ag alloy	Ag alloy
Rated load(apply to resistive)		0.5A 125VAC 1A 24VDC	1A 125VAC 2A 30VDC
MIN. applicable load		100mV 1mA	100mV 0.5mA
Coil voltage		DC: 3-24V	DC: 4.5-48V
Coil Power		D Type: 200mW L Type: 150mW	D Type: 360mW M Type: 200mW
Mechanical life(no load)		1X10 ⁷ times	1X10 ⁷ times
Electrical life		1X10 ⁵ times	1X10 ⁵ times
Dielectric strength	Between contacts	400Vrms	500Vrms
	Coil&contact	1,000Vrms	1,000Vrms
Operating temperature		-20~+70°C	-30~+70°C
Sealed type		Flux-proof, washable	Flux-proof, washable
Dimension L×W×H(mm)		12.6×7.6×10.0	21×10×11.9
Mounting		PCB	PCB
PC Board layout(mm) Bottom view			
Safety certificate		cULus	cULus
Weight(g)		2.2	5
Page		80	82

Apperance		1A Signal Relay	
			
Series		RSC Standard Type (1P)	RSC A Type (1P)
Characteristics		Rated current: 1A High sensitivity Dielectric strength between coil&contact: 1,000VAC Class F coil	Rated current: 1A High sensitivity Dielectric strength between coil&contact: 1,000VAC Class F coil
Contact configuration		1 Form C	1 Form C
Contact material		Ag alloy	Ag alloy
Rated load(apply to resistive)		1A 125VAC 2A 30VDC	1A 125VAC 2A 30VDC
MIN. applicable load		100mV 1mA	100mV 1mA
Coil voltage		DC: 3-24V	DC: 3-24V
Coil Power		D Type: 360mW L Type: 200mW	D Type: 360mW L Type: 200mW
Mechanical life(no load)		1X10 ⁷ times	1X10 ⁷ times
Electrical life		1X10 ⁵ times	1X10 ⁵ times
Dielectric strength	Between contacts	500Vrms	500Vrms
	coil&contact	1,000Vrms	1,000Vrms
Operating temperature		-20~+70°C	-20~+70°C
Sealed type		Flux-proof, washable	Flux-proof, washable
Dimension L×W×H(mm)		15.5×10.6×12.0	15.5×10.6×12.0
Mounting		PCB	PCB
PC Board layout(mm) Bottom view			
Safety certificate		cULus	cULus
Weight(g)		3	3
Page		84	

Appearance		25-30A PCB Relay	
			
Series		RH (1P)	RH (2P)
Characteristics		Rated Current:30A Small and high-power AC/DC input voltage	Rated current: 25A Small and high-power AC/DC input voltage
Contact configuration		1 Form A	2 Form A
Contact material		Ag alloy	Ag alloy
Rated load(apply to resistive)		30A 220VAC	25A 220VAC
Coil voltage		DC: 6~100V AC: 12~220V	DC: 6~100V AC: 12~220V
Coil power		D Type: 1,900mW A Type: 1.7~2.5VA	D Type: 1,900mW A Type: 1.7~2.5VA
Mechanical life(no load)		1X10 ⁶ times	1X10 ⁶ times
Electrical life		5X10 ⁴ times	5X10 ⁴ times
Dielectric strength	Between contacts	2,000Vrms	2,000Vrms
	Heterospolar	2,000Vrms	2,000Vrms
	Coil & contact	4,000Vrms	4,000Vrms
Operating temperature		-25~+60°C	-25~+60°C
Sealed type		Dust cover	Dust cover
Dimension L×W×H(mm)		50.5×33.5×36.0	50.5×33.5×36.0
Mounting		PCB & fast terminal & flange type	PCB & fast terminal & flange type
PC Board layout(mm) Bottom view			
Safety certificate		cULus	cULus
Weight(g)		93	93
Page		86	

RA Power Relay



- 30A power relay
- High capacity, high endurance
- Control switch has enough insulation distance
- Flux-proof type
- Fast terminal

Compliance Certification Number

CQC: CQC12002078691

cULus: E345228

TUV: R50228669

Contact

Contact configuration: 1 form A, 1 form C

Contact material: Ag Alloy

Contact specification

MAX. contact load 30A/250VAC (form A)
20A/250VAC (form C N.O.)
10A/250VAC (form C N.C.)

MAX. contact switching 30A (form A)
20A (formC N.O.)
10A (formC N.C.)

MAX. contact switching 7500VA (form A)
5,000VA (form C N.O.)
2,500VA (form C N.C.)

MIN. applicable load DC5V, 100mA

Coil rating

L type

Rated voltage	Rated current	Coil resistance	Operating power	Operation voltage	Release voltage
(V)	(mA)	(Ω±10%)	(mW)	(VDC)	(VDC)
5	185.2	27	900	≤3.75	≥0.25
8	112.7	71	900	≤6.00	≥0.40
9	92.8	97	900	≤6.75	≥0.45
12	77.4	155	900	≤9.00	≥0.60
18	50.0	360	900	≤13.50	≥0.90
22	41.0	537.8	900	≤16.50	≥1.10
24	36.4	660	900	≤18.00	≥1.20

D type

Rated voltage	Rated current	Coil resistance	Operating power	Operation voltage	Release voltage
(V)	(mA)	(Ω±10%)	(mW)	(VDC)	(VDC)
5	200	25	1000	≤3.75	≥0.25
8	125	64	1000	≤6.00	≥0.40
9	111.1	81	1000	≤6.75	≥0.45
12	83.3	144	1000	≤9.00	≥0.60
18	55.6	324	1000	≤13.50	≥0.90
22	45.5	484	1000	≤16.50	≥1.10
24	41.7	576	1000	≤18.00	≥1.20

MAX.allowable coil voltage:130% of rated coil voltage(Room temperature)

Performance

Contact resistance MAX.100mΩ(DC6V 1A)

Operation voltage 75%MAX.(Room temp)

Release voltage 5%MIN. (Room temp)

Operating time MAX.20ms

Release time MAX.10ms

Dielectric strength

Between contacts: 1,500VAC(1 min)

Between coil & contact: 2,500VAC(1 min)

Surge Resistance 4,000VAC(1.2/50μs)

Insulation Resistance 1,000MΩ(500VDC)

Temperature rise Coil: MIN.35K

Contact MIN.40K

Vibration Error operation 10~55HZ(Amplitude 1.5mm)

Endurance 10~55HZ(Amplitude 1.5mm)

Shock Error operation 98m/s²

Endurance 980m/s²

Electrical Life 30A/250VAC,85℃, 100,000ops

20A(10A)/250VAC,85℃,100,000ops

Mechanical Life 1,000,00ops

Operating -40~85℃(No condensation)

Operating humidity 20~85%

SSA approval rating

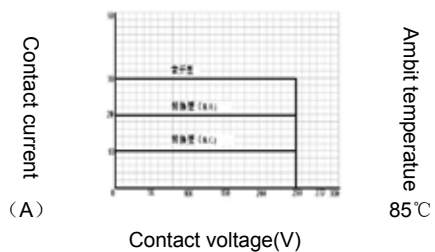
CQC (1 Form A) 30A/250VAC 85℃ 80,000ops
(1 Form C) 20A (10A) /250VAC 85℃ 80,000ops
cULus (1 Form A) 30A/250VAC 85℃ 100,000ops
2HP/240VAC 85℃ 30,000ops
(1 Form C) 20A (10A) /250VAC 85℃ 100,000ops
TUV (1 Form A) 30A/250VAC 85℃ 100,000ops
(1 Form C) 20A (10A) /250VAC 85℃ 100,000ops

Nomenclature

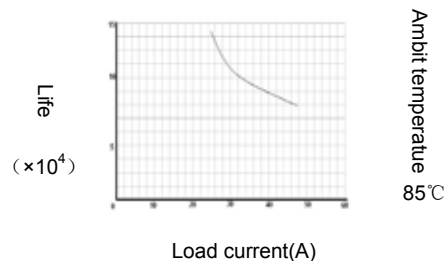
	RA1	-1	12	D	M	*	F	-XXX
Model designation								
RA1—A type case with PCB terminal								
RA2--B type case with PCB & fast terminal								
RA5—C type case with fast terminal								
Number of poles								
	1: 1pole							
Coil voltage								
	05~24: 5~24V							
Coil power								
	L: 900mW D:1000mW							
Contact configuration								
	M: 1 form A Blank: 1 form C							
Contact material								
	Blank: AgSnO ₂ Other numbers: other materials							
Insulation Class								
	Blank: Class A F: Class F							
Special request								

Reference data

MAX. contact capacity

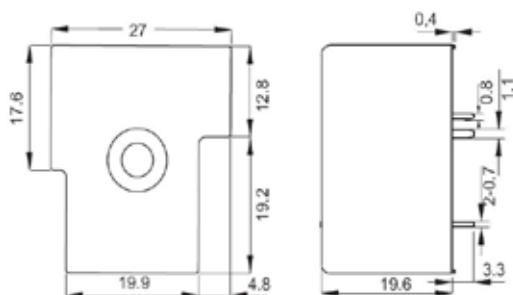


Life curve(1 form A)

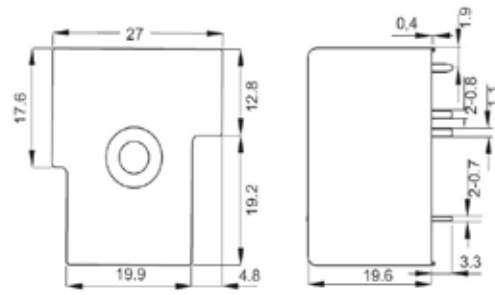


Outline dimension

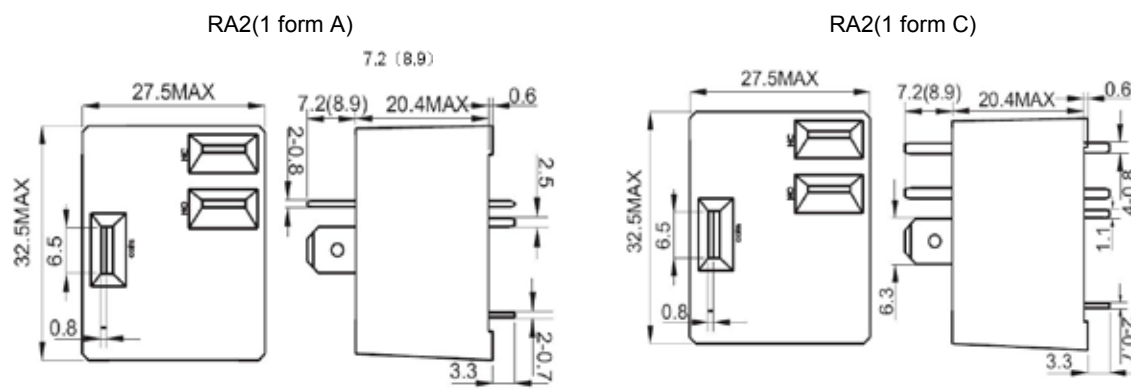
RA1(1 form A)



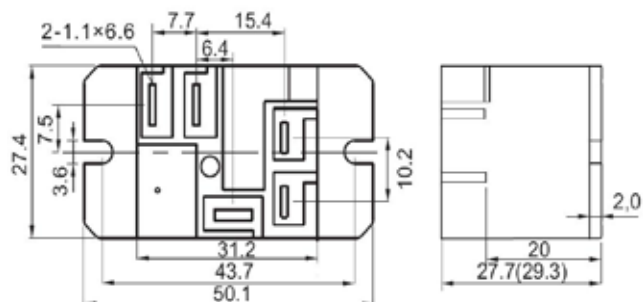
RA1(1 form C)



Outline dimension



RA5 Outline dimension

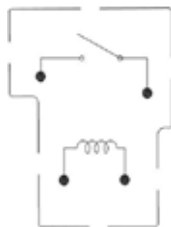


Tolerance

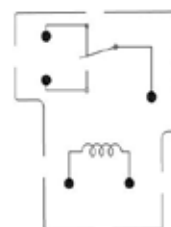
<1mm	±0.2mm
1~5mm	±0.3mm
>5mm	±0.4mm

Terminal assignment

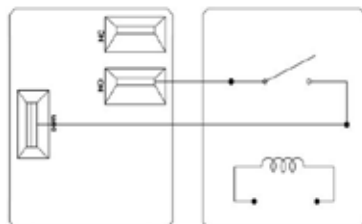
RA1 (1 form A)



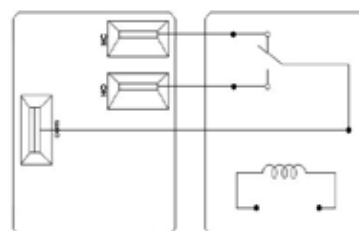
RA1 (1form C)



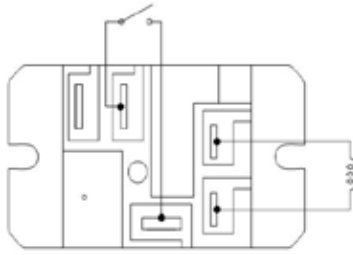
RA2 (1 form A)



RA2 (1form C)



RA5 (1 form A)

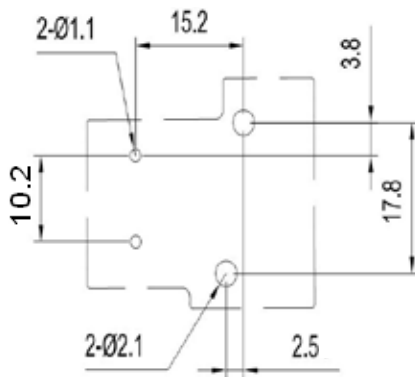


RA5 (1form C)

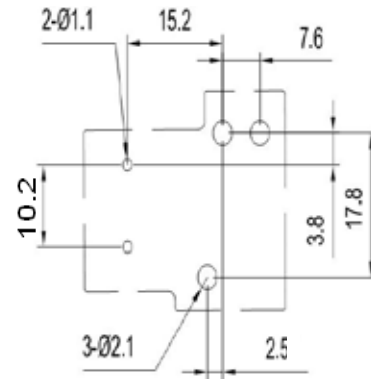


PCB board layout

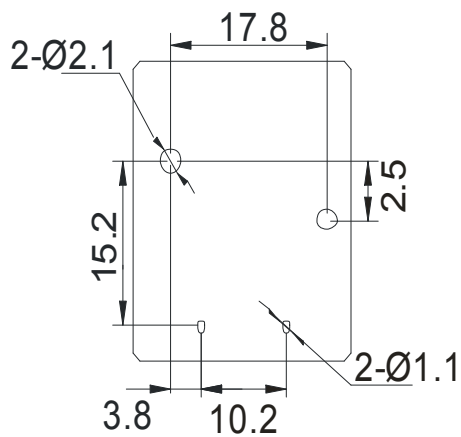
RA1 (1 form A)



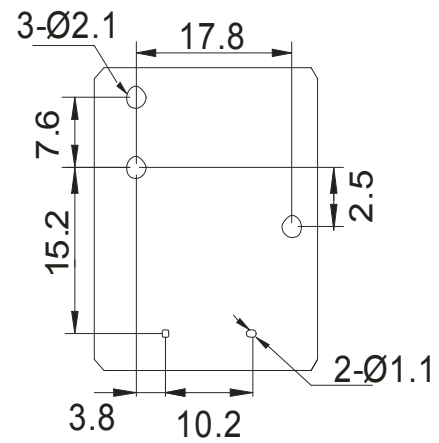
RA1 (1form C)



RA2 (1 form A)



RA2 (1form C)



Tolerance

Pitch-row	±0.1mm
Aperture	+0.1mm

RB Power Relay



Compliance Certification Number

CQC: CQC12002086471

cULus: E345228

TUV: R50249912

Contact

Contact configuration 1 form A, 1 form B, 1 form C
2 form A, 2 form B, 2 form C

Contact material : Ag Alloy

Contact specification

MAX. contact load 20A/250VAC (1P form A)
20A/250VAC (1P form B)
16A/277VAC (1P form C)
8A/277VAC (1P form A)
8A/277VAC (2P form C)
8A/277VAC (2P form B)
8A/277VAC (2P formC N.O.)
4A/277VAC (2P form C N.C.)

Rated contact current 20A (1P formA)
20A (1P formB)
16A (1P formC N.O.)
8A (1P formC N.C.)
8A (2P formA)
8A (2P formB)
8A (2P formC N.O.)
4A (2P formC N.C.)

MAX.contact capacity 5,000VA (1P form A)
5,000VA (1P form B)
4,432VA (1P form C N.O.)
2,216VA (1P form C N.C.)
2,216VA (2P form A)
2,216VA (2P form B)
2,216VA (2P form C N.O.)
1,108VA (2P form C N.C.)

MIN.applicable load DC5V, 100mA

Coil rating

Rated voltage	Rated current	Coil resistance	Operating power	Operation voltage	Release voltage
(VDC)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
5	80.6	62	400	≤ 3.75	≥ 0.25
6	66.7	90	400	≤ 4.50	≥ 0.30
9	45.0	200	400	≤ 6.75	≥ 0.45
12	33	360	400	≤ 9.00	≥ 0.60
18	22.2	810	400	≤ 13.50	≥ 0.90
24	16.7	1440	400	≤ 18.00	≥ 1.20

MAX.allowable coil voltage:130% of rated coil voltage
(Room temperature)

- Small high-capability relay
- Dielectric strength between coil&contact 5,000VAC
- Class F coil insulation
- Control switch has enough insulation distance
- TV Load is available

Performance

Contact resistance MAX.100m Ω (DC6V 1A)
Operation voltage 75%MAX.(Room temp)
Release voltage 5%MIN. (Room temp)
Operating time MAX.20ms
Release time MAX.10ms
Dielectric strength

Open Contacts: 1000VAC(1 min)

Adjacent Contacts: 2500VAC(1 min)

between coil & contact: 5000CAV(1min)

Surge Resistance 7,000VAC(1.2/50 μ s)

Insulation Resistance 1,000M Ω (500VDC)

Temperature rise Coil : MIN.35K

Contact: MIN.40K

Vibration Error operation 10~55HZ(Amplitude 1.5mm)

Endurance 10~55HZ(Amplitude 1.5mm)

Shock Error operation 98m/s²

Endurance 980m/s²

Electrical Life (1P)16A/277VAC, 105℃, 100,000ops

(1P)16A(8A)/277VAC,105℃, 100,000ops

(2P)8A/277VAC, 105℃, 100,000ops

(2P)8A(4A)/277VAC,105℃, 100,000ops

(1P)TV-10,250VAC, 40℃, 25,000ops

Mechanical Life 1,000,000ops

Operating temperature -40~105℃(No condensation)

Operating humidity 20~85%

SSA approval rating

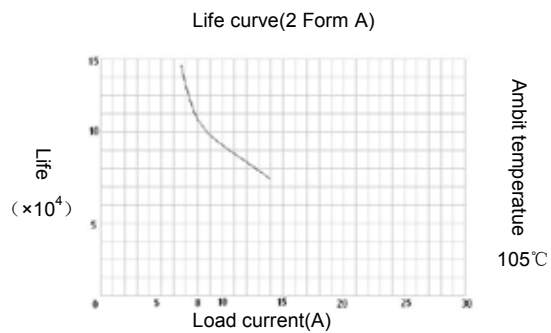
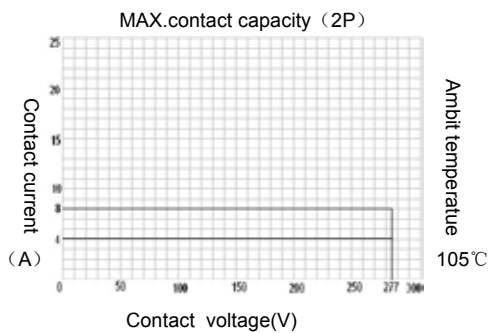
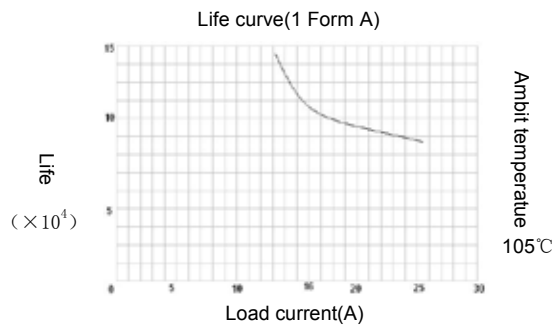
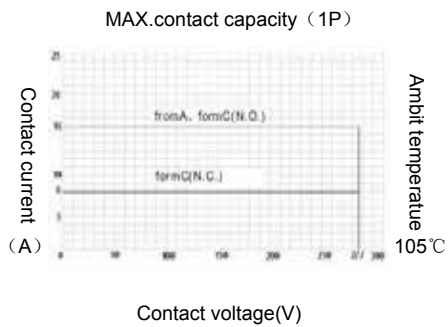
CQC	(1 Form A)	16A/277VAC	105℃, 100,000ops
	(1 Form C)	N.O.: 16A/277VAC	105℃, 100,000ops
		N.C.: 8A/277VAC	105℃, 100,000ops
	(2 Form A)	10A/277VAC	105℃, 100,000ops
		8A/277VAC	105℃, 100,000ops
	(2 Form C)	N.O.: 8A/277VAC	105℃, 100,000ops
		N.C.: 4A/277VAC	105℃, 100,000ops
		16A/277VAC	105℃, 100,000ops
	(1 Form C)	N.O.: 16A/277VAC	105℃, 100,000ops
		N.C.: 8A/277VAC	105℃, 100,000ops
TUV	(2 Form A)	8A/277VAC	105℃, 100,000ops
	(2 Form C)	N.O.: 8A/277VAC	105℃, 100,000ops
		N.C.: 4A/277VAC	105℃, 100,000ops
	(1 Form A)	16A/277VAC	105℃, 100,000ops
		1/2HP 120VAC	105℃, 30,000ops
		20A/250VAC	105℃, 30,000ops
		TV-10,250VAC	40℃, 25,000ops
	(1 Form B)	16A/277VAC	105℃, 100,000ops
		20A/250VAC	105℃, 30,000ops
	(1 Form C)	N.O.: 16A/277VAC	105℃, 100,000ops
cULus		N.C.: 8A/277VAC	105℃, 100,000ops
	(2 Form A)	8A/277VAC	105℃, 100,000ops
		1/8HP 120VAC	105℃, 30,000ops
	(2 Form B)	8A/277VAC	105℃, 100,000ops
	(2 Form C)	N.O.: 8A/277VAC	105℃, 100,000ops
		N.C.: 4A/277VAC	105℃, 100,000ops
		16A/277VAC	105℃, 100,000ops
		1/2HP 120VAC	105℃, 30,000ops
		20A/250VAC	105℃, 30,000ops
		TV-10,250VAC	40℃, 25,000ops

Nomenclature

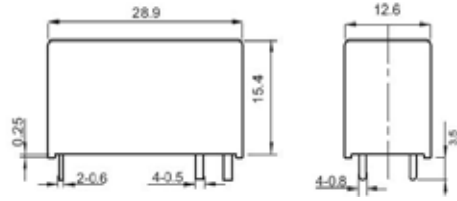
	RB	-2	12	D	M	*	F	1	-1	-XXX
Model designation	RB									
Number of poles		1:1 pole	2:2 poles							
Coil voltage			05:5V; 06:6V; 09:9V; 12:12V; 18:18V; 24:24V							
Coil power			D: 400mW							
Contact configuration			M: form A	Blank: form C	B: form B					
Contact material			Blank: AgNi	Other numbers: other materials						
Insulation Class			Blank: Class A	F: Class F						
Distance between different terminations			1: 3.5mm (4 Pins Form A) 3: 3.5mm (5 Pins Form C) 5: 5.0mm (6 Pins Form A) 7: 3.5mm (4 Pins Form B) 9: 5.0mm (6 Pins Form B)	2: 5.0mm (4 Pins Form A) 4: 5.0mm (5 Pins Form C) 6: 5.0mm (8 Pins Form C) 8: 5.0mm (4 Pins Form B)						
Contact dimension(Only for 1P)			1: $\Phi 4.5$ mm	Blank: $\Phi 3.5$ mm						

Special request

Reference data



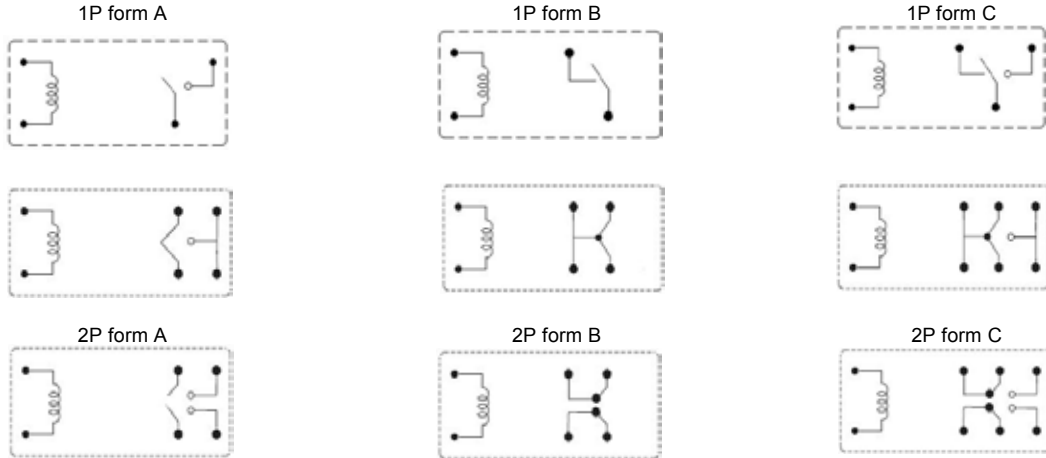
Outline dimension



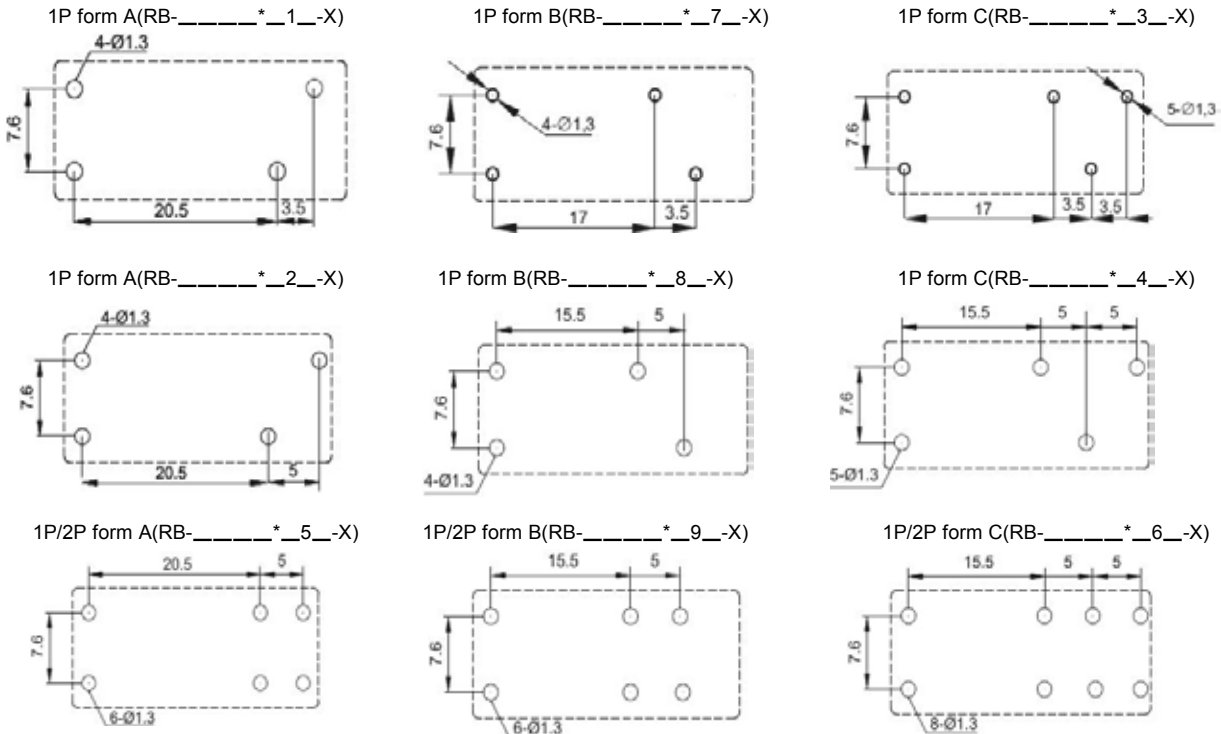
Tolerance

<1mm	±0.2mm
1~5mm	±0.3mm
>5mm	±0.4mm

Terminal assignment



PCB board layout



Tolerance

Pitch-row	±0.1mm
Aperture	+0.1mm

RBF Power Relay



· Small high-capability relay

· 20A power relay

· Class F coil insulation

· #250 Fast terminal

Compliance Certification Number

CQC:

cULus: E345228

TUV:

Contact

Contact configuration: 1 form A 1 form B

Contact material : Ag Alloy

Contact specification

MAX. contact load	20A/250VAC (1P form A)
	20A/250VAC (1P form B)
Rated contact current	20A (1P form A)
	20A (1P form B)
MAX.contact capacity	5,000VA (1P form A)
	5,000VA (1P form B)
MIN.applicable load	DC5V, 100mA

Coil rating

Rated voltage	Rated current	Coil resistance	Operating power	Operation voltage	Release voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
5	80.6	62	400	≤ 3.75	≥ 0.25
6	66.7	90	400	≤ 4.50	≥ 0.30
9	45	200	400	≤ 6.75	≥ 0.45
12	33.3	360	400	≤ 9.00	≥ 0.60
18	22.2	810	400	≤ 13.50	≥ 0.90
24	16.7	1440	400	≤ 18.00	≥ 1.20

MAX.allowable coil voltage:130% of rated coil voltage(Room temperature)

Performance

Contact resistance	MAX.100m Ω (DC6V 1A)
Operation voltage	75%MAX.(Room temp)
Release voltage	5%MIN. (Room temp)
Operating time	MAX.20ms
Release time	MAX.10ms
Dielectric strength	Between contacts: 1,000VAC(1 min)
	Between coil & contacts: 5,000VAC(1 min)
SurgeResistance	7,000VAC(1.2/50 μ s)
Insulation Resistance	1,000M Ω (500VDC)
Temperature rise	Coil : MIN.35K
	Contact : MIN.40K
Vibration	Error operation 10~55HZ(Amplitude 1.5mm)
	Endurance 10~55HZ(Amplitude 1.5mm)
Shock	Error operation 98m/s ²
	Endurance 980m/s ²
Electrical Life	16A/277VAC, 105℃, 100,000ops
	20A/277VAC,105℃, 30,000ops
Mechanical Life	1,000,000ops
Operating temperature	-40~105℃(No condensation)
Operating humidity	20~85%

SSA approval rating

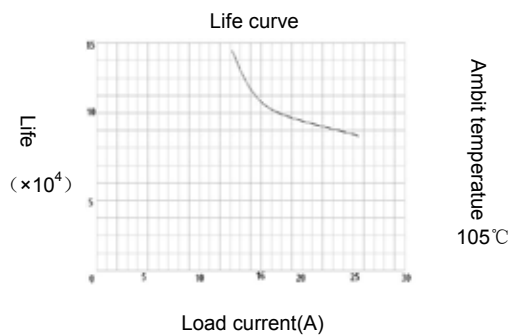
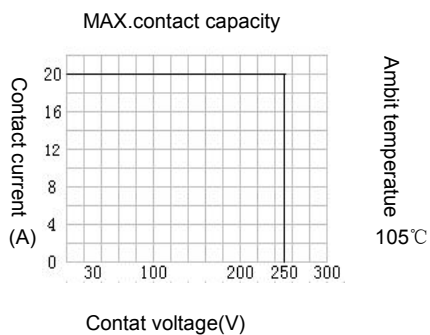
cULus	(1 Form A)	16A/277VAC 105℃, 100,000ops
		20A/250VAC 105℃, 30,000ops
	(1 Form B)	16A/277VAC 105℃, 100,000ops
		20A/250VAC 105℃, 30,000ops

Nomenclature

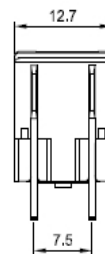
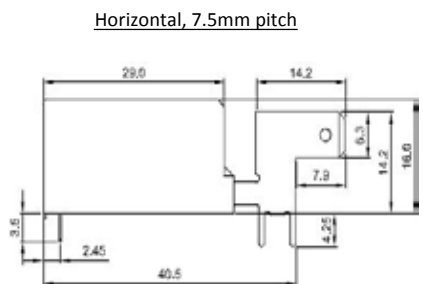
	RBF	-1	12	D	M	*	F	-A	-1	-XXX
Model designation	RBF									
Number of poles	1: 1 pole									
Coil voltage	05~24: 5V~24V									
Coil power	D: 400mW									
Contact configuration	M: Form A	B: Form B								
Contact material	Blank: AgNi	Other numbers: other materials								
Insulation Class	Blank:Class A	F: Class F								
Distance between different terminations	A: Vertical, 5.0mm pitch	B: Vertical, 7.5mm pitch								
	C: Horizontal, 5.0mm pitch	D: Horizontal, 7.5mm pitch								
Contact dimension	1: $\Phi 4.5$ mm	Blank: $\Phi 3.5$ mm								

Special request

Reference data

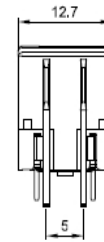
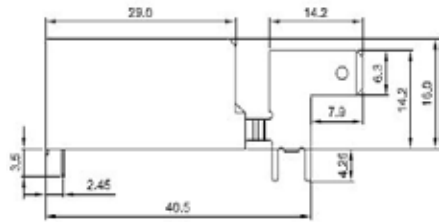


Outline dimension

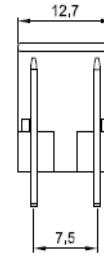
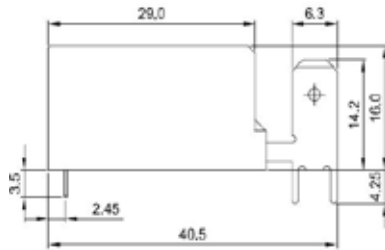


Outline dimension

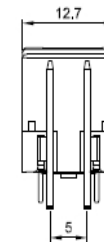
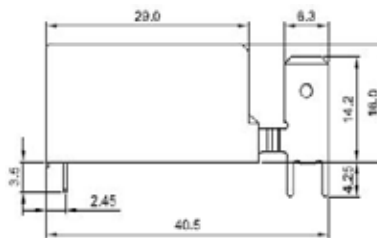
Horizontal, 5.0mm pitch



Vertical, 7.5mm pitch



Vertical, 5.0mm pitch



Tolerance

<1mm	±0.2mm
1~5mm	±0.3mm
>5mm	±0.4mm

Terminal assignment

1 Form A

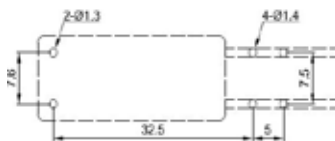


1 Form B

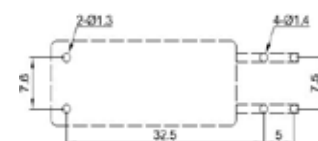


PCB board layout

Horizontal, 7.5mm pitch



Vertical, 7.5mm pitch



Horizontal, 5.0mm pitch



Vertical, 5.0mm pitch



Tolerance

Pitch-row	±0.1mm
Aperture	+0.1mm

RC Power Relay



- 5A small power relay
- 200mW sensitive coil
- Safety approval: CQC, cULus, TUV, VDE
- Washable high spec. version
- Width 7mm relay
- Explosion proof product is available.
- Meets IEC 60079 Anti-Explosion standard

Compliance Certification Number

CQC: CQC12002067898
cULus: E345228
TUV: R50220640
VDE: 40034781

Contact

Contact configuration: 1 form A
Contact material : Ag Alloy

Contact specification

MAX. contact load 5A/250VAC
Rated contact current 5A
MAX.contact capacity 1,250VA
MIN.applicable load DC5V, 100mA

Coil rating

D type

Rated voltage	Rated current	Coil resistance	Operating power	Operating voltage	Release voltage
(VDC)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
5	40	125	200	≤ 3.75	≥ 0.25
9	22.2	405	200	≤ 6.75	≥ 0.45
12	16.7	720	200	≤ 9.00	≥ 0.60
24	8.3	2,880	200	≤ 18.00	≥ 1.20

MAX.allowable coil voltage:130% of rated coil voltage
(Room temperature)

Contact resistance MAX.100m Ω (DC6V 1A)
Operation voltage 75%MAX.(Room temp)
Release voltage 5%MIN. (Room temp)
Operating time MAX.20ms
Release time MAX.10ms
Dielectric strength Between contacts: 750VAC(1 min)
Between coil & contact: 4,000VAC(1 min)
Surge Resistance 5,000VAC(1.2/50 μ s)
Insulation Resistance 1,000M Ω (500VDC)
Temperature rise Coil : MAX.35K
Contact : MAX.40K
Vibration Error operation 10~55HZ(Amplitude 1.5mm)
Endurance 10~55HZ(Amplitude 1.5mm)
Shock Error operation 98m/s²
Endurance 980m/s²
Electrical Life 5A/250VAC, 85℃, 100,000ops
1/8HP/240VAC, 85℃, 30,000ops
Mechanical Life 1,000,000ops
Operating temperature -40~85℃(No condensation)
Operating humidity 20~85%

SSA approval rating

CQC	5A/250VAC	85℃	100,000ops
	3A/250VAC	85℃	100,000ops
	5A/250VAC	85℃	100,000ops
	3A/250VAC	85℃	100,000ops
cULus	1/8HP/240VAC	85℃	30,000ops
	5A/30VDC	85℃	100,000ops
	5A/250VAC	85℃	100,000ops
	3A/250VAC	85℃	100,000ops
TUV	5A/250VAC	85℃	100,000ops
	3A/250VAC	85℃	100,000ops
	5A/250VAC	85℃	60,000ops
	3A/250VAC	65℃	100,000ops



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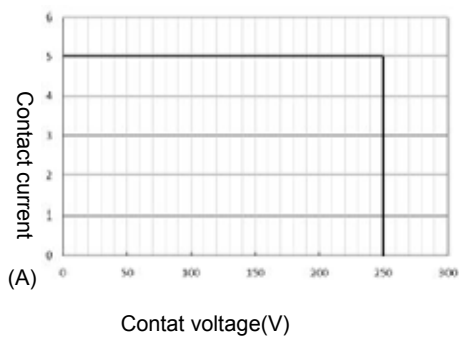
Nomenclature

	RC	-1	12	D	M	1	F	H	-A	-XXX
Model designation	RC									
Number of poles	1:1pole									
Coil voltage	05:5V, 09:9V, 12:12V, 24:24V									
Coil power	D: 200mW									
Contact configuration	M: 1 form A									
Contact rating	Blank: 3A	1: 5A								
Insulation Class	Blank: Class A	F: Class F								
Sealed type	Blank: Flux-proof	H: Washable type								
Pin layout	Blank: Standard	A:Special pin layout								

Special request

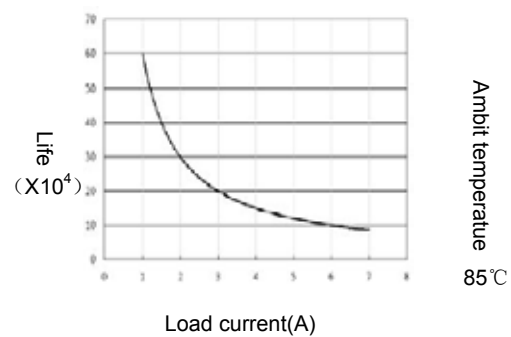
Reference data

MAX.contact capacity



Ambit temperature
85℃

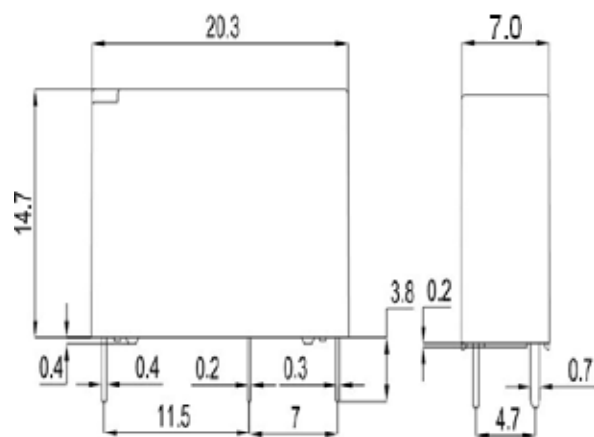
Life curve



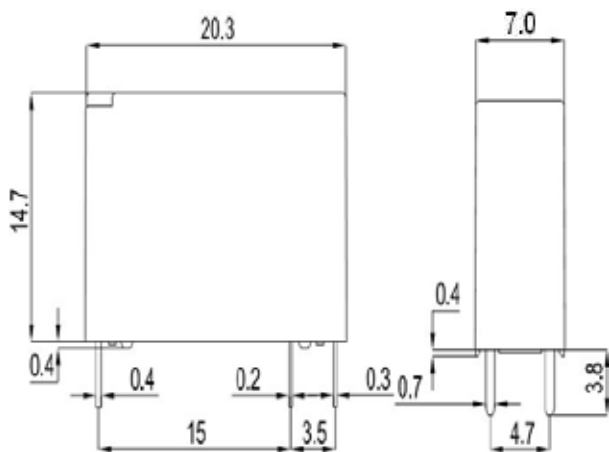
Ambit temperature
85℃

Outline dimension

Standard



A type



Tolerance

<1mm	±0.2mm
1~5mm	±0.3mm
>5mm	±0.4mm

Terminal assignment

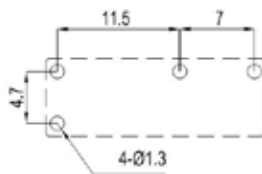
Standard



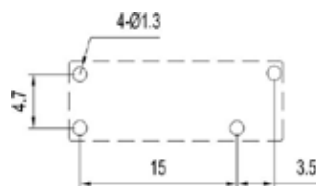
A type



PCB board layout

Standard

A type



Tolerance

Pitch-row	$\pm 0.1\text{mm}$
Aperture	$+0.1\text{mm}$

RD Power Relay



Compliance Certification Number

CQC: CQC12002082387

cULus: E345228

TUV: R50244311

Contact

Contact configuration 1 form A , 1form C

Contact material Ag Alloy

Contact specification

MAX. contact load

15A/277VAC(1 form A)

7A/277VAC(1form C N.O.)

3A/277VAC(1form C N.C.)

Rated contact current

15A(1 form A)

7A(1form C N.O.)

3A(1form C N.C.)

MAX.contact capacity

4,155VA(1 form A)

1,939VA(1form C N.O.)

831VA(1form C N.C.)

MIN.applicable load

DC5V,100mA

- 15A power relay
- Control switch has enough insulation distance
- Flux-proof type
- TV Load is available

Performance

Contact resistance MAX100m Ω (DC6V 1A)

Operation voltage 75%MAX(Room temp)

Release voltage 5%MIN(Room temp)

Operating time 20msMAX

Release time 10msMAX

Dielectric strength

Between contacts 750VAC(1 min)

Between coil & contacts 1,500VAC(1 min)

Surge Resistance 2,500VAC(1.2/50 μ s)

Insulation Resistance 1,000M Ω (500VDC)

Temperature rise

Coil 35kMAX

Contact 40kMAX

Vibration

Error operation 10~55HZ(Amplitude1.5mm)

Endurance 10~55HZ(Amplitude1.5mm)

Shock

Error operation 98m/s²

Endurance 980m/s²

Electrical Life

10A/277VAC,105 $^{\circ}$ C 100,000ops

7A(3A)/277VAC,105 $^{\circ}$ C 100,000ops

Mechanical Life 1,000,000ops

Operating temperature

-40~105 $^{\circ}$ C(No condensation)

Operating humidity

20~85%

Coil rating

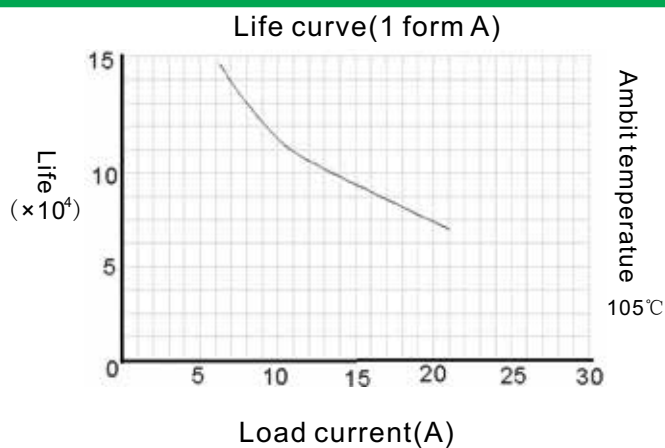
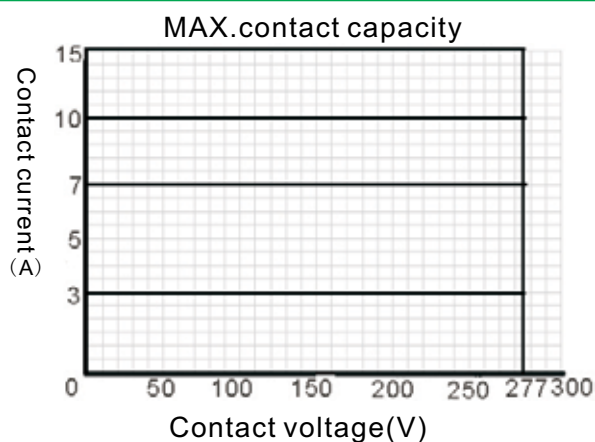
Rated voltage (VDC)	Rated current (mA)	Coil resistance ($\Omega \pm 10\%$)	Operating power (mW)	Operation voltage (VDC)	Release voltage (VDC)
5	72	69.4	360	≤ 3.75	≥ 0.25
6	60	100	360	≤ 4.50	≥ 0.30
9	40	225	360	≤ 6.75	≥ 0.45
12	30	400	360	≤ 9.00	≥ 0.60
24	15	1,600	360	≤ 18.00	≥ 1.20

MAX.allowable coil voltage:130% of rated coil voltage(Room temperature)

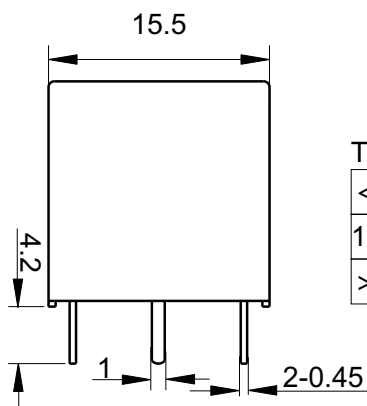
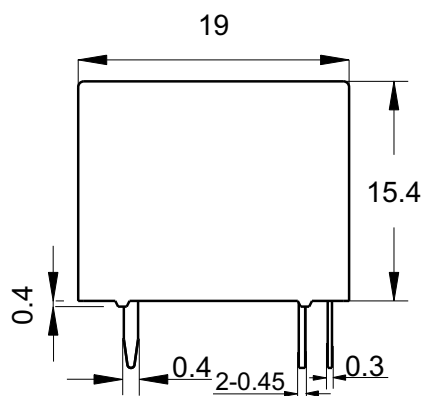
Nomenclature

	RD	-1	12	D	M	*	F	-A	-XXX
Model designation	RD								
Number of poles									
Coil voltage									
Coil power									
Contact configuration									
Contact material									
Insulation class									
PCB Terminal structure									
Special request									

Reference data



Outline dimension

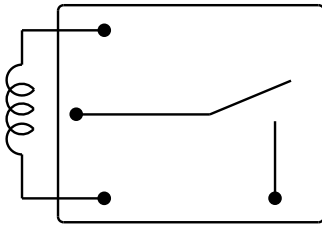


Tolerance

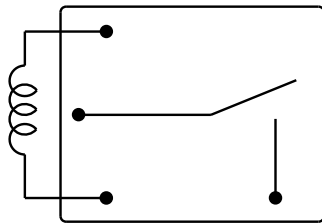
< 1mm	±0.2mm
1~5mm	±0.3mm
> 5mm	±0.4mm

Terminal assignment

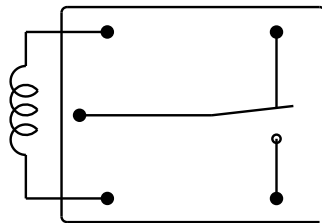
Standard



form A



form C

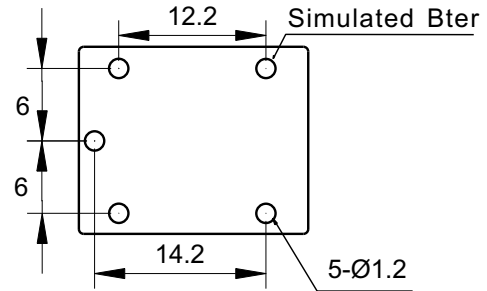


Tolerance

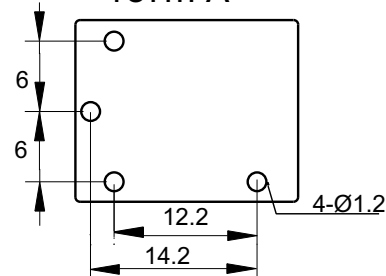
Pitch-row	±0.1mm
Aperture	+0.1mm

PCB board layout

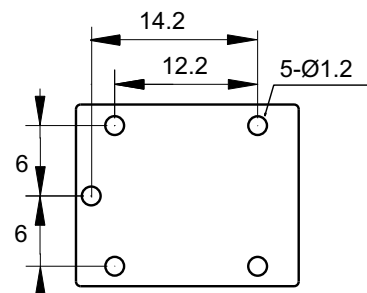
Standard



form A



form C



SSA approval rating

CQC	(1formA)	10A/277VAC	105°C	100,000ops
		10A/250VAC	105°C	100,000ops
	(1formC)	7A(3A)/277VAC	105°C	100,000ops
		7A(3A)/250VAC	105°C	100,000ops
cULus	(1formA)	10A/277VAC	105°C	100,000ops
		10A/125VAC	105°C	100,000ops
		12A/125/250VAC	105°C	50,000ops
		15A/125/250VAC	105°C	50,000ops
		TV-5/125/250VAC	105°C	25,000ops
		1/4HP/240VAC	105°C	30,000ops
	(1formC)	7A(3A)277VAC	105°C	100,000ops
		12A/125/250VAC	105°C	50,000ops
		15A/125/250VAC	105°C	50,000ops
		NO:TV-5/125/250VAC	105°C	25,000ops
TUV	(1formA)	10A/277VAC	105°C	100,000ops
		15A/277VAC	105°C	5,000ops
		12A/277VAC	105°C	6,000ops
		15A/12A/250VAC	105°C	14,000ops
		15A/12A/10A/125VAC	105°C	14,000ops
	(1formC)	7A(3A)/277VAC	105°C	100,000ops
		15A(15A)/277VAC	105°C	5,000ops
		12A(12A)/277VAC	105°C	6,000ops
		10A(10A)/125VAC	105°C	6,000ops
		15A(15A)/125VAC	105°C	5,000ops
		12A(12A)/125VAC	105°C	6,000ops
		10A(10A)/125VAC	105°C	6,000ops

RE/REF Power Relay



Compliance Certification Number

CQC: CQC12002086474

cULus: E3452278

TUV: R50250866

Contact

Contact configuration 1 form A

Contact material: Ag Alloy

Contact specification

MAX. contact load 16A/277VAC(1 form A)

Rated contact current 16A(1 form A)

MAX.contact capacity 4,432VA(1 form A)

MIN.applicable load DC5V, 100mA

Coil rating

Rated voltage	Rated current	Coil resistance	Operating power	Operation voltage	Release voltage
(VDC)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
5	40	125	200	≤ 3.75	≥ 0.25
9	22.2	405	200	≤ 6.75	≥ 0.45
12	16.7	720	200	≤ 9.00	≥ 0.60
18	11.1	1620	200	≤ 13.5	≥ 0.90
24	8.3	2,880	200	≤ 18.00	≥ 1.20

MAX.allowable coil voltage:130% of rated coil voltage

(Room temperature)

- 16A power small relay
- Low shape
- Low power consumption
- 200mW high sensitive coil
- #187 Fast terminal

Performance

Contact resistance MAX.100m Ω (DC6V 1A)

Operation voltage 75%MAX.(Room temp)

Release voltage 5%MIN. (Room temp)

Operating time MAX.20ms

Release time MIN.10ms

Dielectric strength

Between contacts : 1,000VAC(1 min)

Between coil & contact: 2,000VAC(1 min)

Surge Resistance 5,000VAC(1.2/50 μ s)

Insulation Resistance 1,000M Ω (500VDC)

Temperature rise Coil : MAX.35K

Contact : MAX.40K

Vibration Error operation 10~55HZ(Amplitude 1.5mm)

Endurance 10~55HZ(Amplitude 1.5mm)

Shock Error operation 98m/s²

Endurance 980m/s²

Electrical Life 10A/250VAC, 105℃, 100,000ops

16A/277VAC,105℃, 100,000ops

Mechanical Life 1,000,000ops

Operating temperature -40~105℃(No condensation)

Operating humidity 20~85%

SSA approval rating

CQC 10A/250VAC 105℃, 100,000ops

15A/250VAC 105℃, 100,000ops

16A/250VAC 105℃, 100,000ops

16A/277VAC 105℃, 100,000ops

cULus 10A/250VAC 105℃, 100,000ops

10A/30VDC 105℃, 100,000ops

15A/250VAC 105℃, 100,000ops

1/3HP 240VAC 105℃, 30,000ops

TUV 10A/250VAC 105℃, 100,000ops

15A/250VAC 105℃, 100,000ops



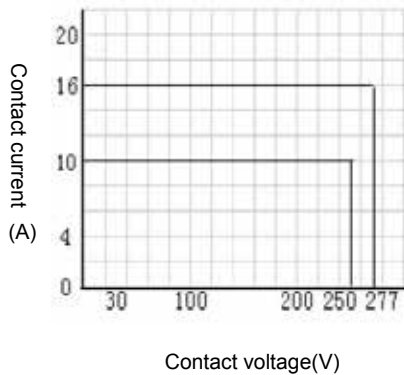
Nomenclature

	RE	-1	12	D	M	1	F	-XXX
Model designation								
RE: A type,base with PCB terminal								
REF: B type,base with PCB&fast terminal								
Number of poles								
1: 1 pole								
Coil voltage								
05:5V, 09:9V, 12:12V, 18:18V, 24:24V								
Coil power								
D: 200mW								
Contact configuration								
M: 1 form A								
Contact rating								
Blank: 10A 1: 15A/16A								
Insulation Class								
Blank: Class A F: Class F								

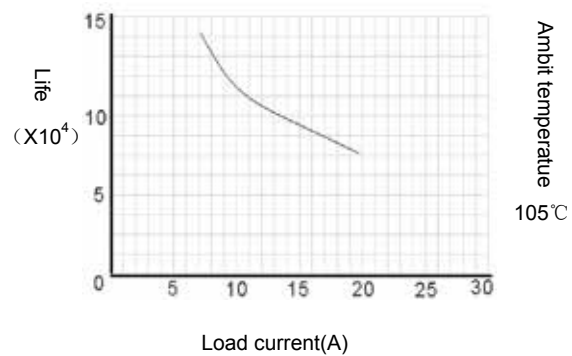
Special request

Reference data

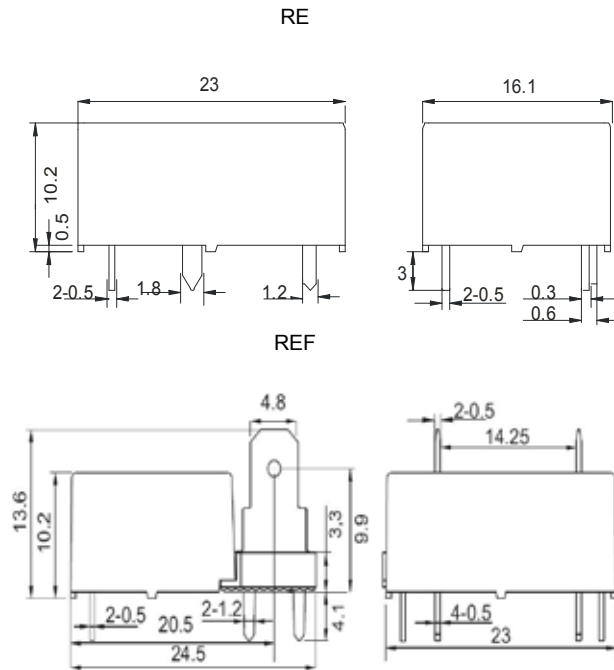
MAX.contact capacity



Life curve(1 form A)



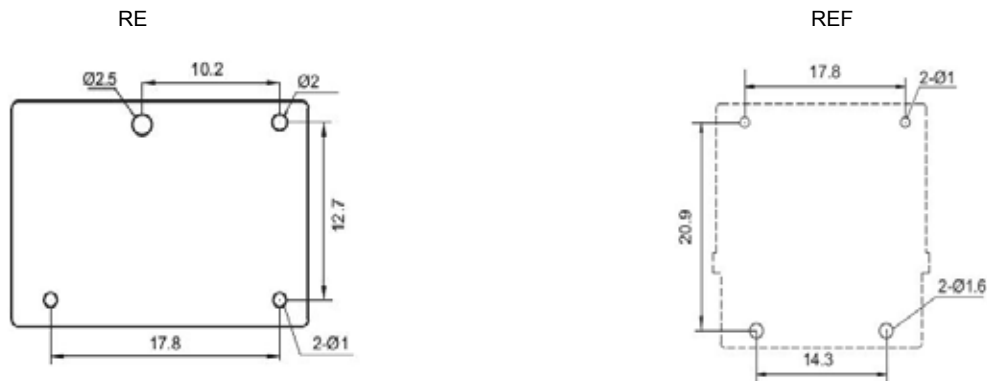
Outline dimension



Terminal assignment



PCB board layout



Tolerance	
Pitch-row	±0.1mm
Aperture	+0.1mm

RF Power Relay



- 32A power relay
- High capacity, high endurance
- Control switch has enough insulation distance
- Flux-proof type
- #250 Fast terminal
- Meets IEC 60079 Anti-Explosion standard

Compliance Certification Number

CQC: CQC10002052738
cULus: E345228
TUV: R50194013
VDE: 40032929

Contact

Contact configuration 1 form A
Contact material Ag Alloy

Contact specification

MAX. contact load 32A/250VAC
Rated contact current 32A
MAX.contact capacity 8,000VA
MIN.applicable load DC5V, 100mA

Coil rating

Rated voltage (VDC)	Rated current (mA)	Coil resistance ($\Omega \pm 10\%$)	Operating power (mW)	Operation voltage (VDC)	Release voltage (VDC)
5	179	28	900	≤ 3.75	≥ 0.25
9	100	90	900	≤ 6.75	≥ 0.45
12	75	160	900	≤ 9.00	≥ 0.60
24	38	640	900	≤ 18.00	≥ 1.20

MAX.allowable coil voltage:130% of rated coil voltage
(Room temperature)

Performance

Contact resistance MAX.100m Ω (DC6V 1A)
Operation voltage 75%MAX.(Room temp)
Release voltage 5%MIN. (Room temp)
Operating time MAX.20ms
Release time MAX.10ms
Dielectric strength
Between contacts : 1,000VAC(1 min)
Between coil & contact: 4,500VAC(1 min)
Surge Resistance 7,000VAC(1.2/50 μ s)
Insulation Resistance 1,000M Ω (500VDC)
Temperature rise Coil : MAX.35K
Contact : MAX.40K
Vibration Error operation 10~55HZ(Amplitude 1.5mm)
Endurance 10~55HZ(Amplitude 1.5mm)
Shock Error operation 98m/s²
Endurance 980m/s²
Electrical Life 25A/250VAC, 65°C, 100,000ops
2HP/240VAC,65°C, 100,000ops
Mechanical Life 1,000,000ops
Operating temperature -40~105°C(No condensation)
Operating humidity 20~85%

SSA approval rating

CQC	16A/250VAC	85°C, 100,000ops
	20A/250VAC	85°C, 100,000ops
	25A/250VAC	85°C, 100,000ops
cULus	20A/250VAC	65°C, 100,000ops
	20A/25A/250VAC	85°C, 100,000ops
	20A/25A/277VAC	85°C, 100,000ops
	2HP/240VAC	65°C, 100,000ops
	1-1/2HP/277VAC	105°C,100,000ops
TUV	20A/250VAC	85°C, 100,000ops
	25A/250VAC	85°C, 100,000ops
	32A/250VAC	85°C, 100,000ops
VDE	25A/250VAC	65°C, 80,000ops



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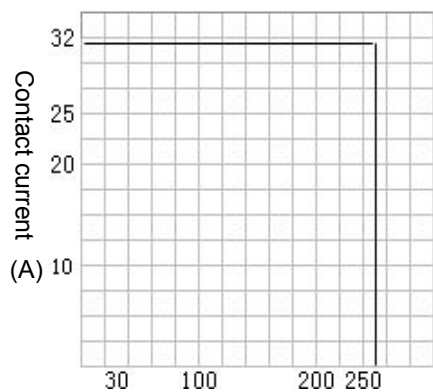
Nomenclature

	RF	-SS	-1	12	D	M	F	*	-F	-XXX
Model designation	RF									
Sealed type		SS: Flux-proof								
Number of poles			1: 1 pole							
Coil voltage				05:5V, 09:9V, 12:12V, 24:24V						
Coil power				D: 900mW						
Contact configuration					M: 1 form A					
Terminal						Blank: Without fast terminal	F: With fast terminal			
Contact material									Blank: AgSnO ₂	
Insulation Class									Blank: Class A	F: Class F

Special request

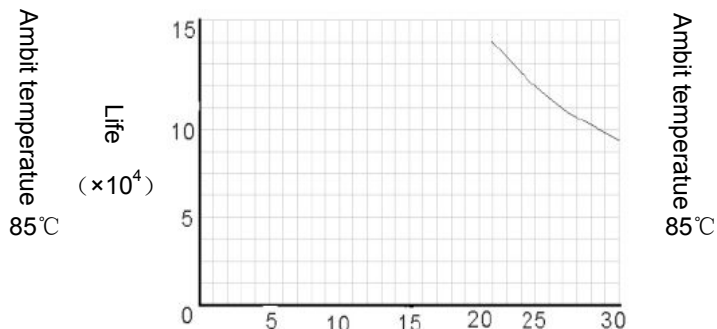
Reference data

MAX.contact capacity



Contact voltage (V)

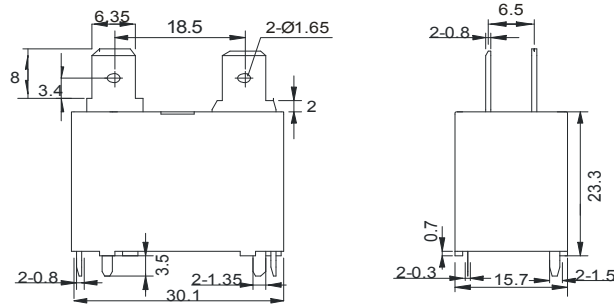
Life curve



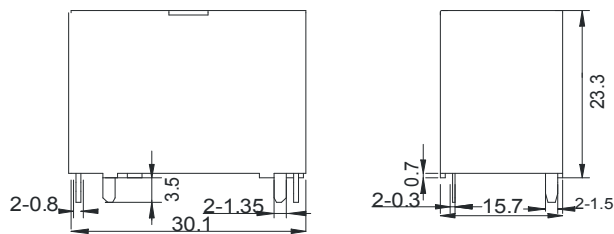
Load current(A)

Outline dimension

Fast terminal type



P type

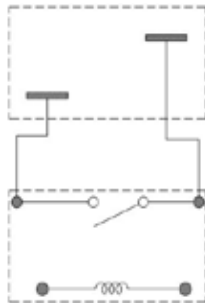


Tolerance

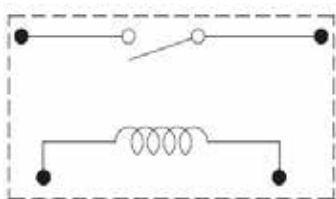
<1mm	±0.2mm
1~5mm	±0.3mm
>5mm	±0.4mm

Terminal assignment

Fast terminal type

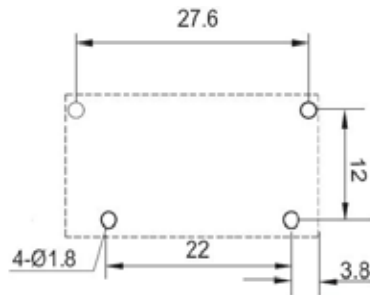


P type

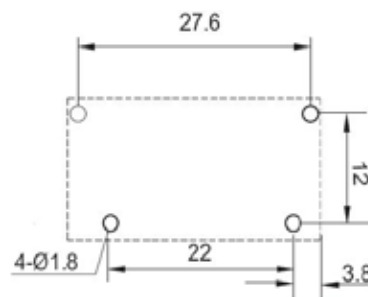


PCB board layout

Fast terminal type



P type



Tolerance

Pitch-row	±0.1mm
Aperture	+0.1mm

RFL Power Relay



Compliance Certification Number

cULus: E345228
TUV: R50194013
VDE: 40032939

Contact

Contact configuration 1 form A
Contact material: Ag Alloy

Contact specification

MAX. contact load 32A/250VAC
Rated contact current 32A
MAX.contact capacity 8,000VA
MIN.applicable load DC5V, 100mA

Coil rating

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
5	179	28	900	≤ 3.75	≥ 0.25
9	100	90	900	≤ 6.75	≥ 0.45
12	75	160	900	≤ 9.00	≥ 0.60
24	37.5	640	900	≤ 18.00	≥ 1.20

MAX.allowable coil voltage:130% of rated coil voltage

(Room temperature)

- 32A power relay
- High capacity, high endurance
- Control switch has enough insulation distance
- Flux-proof type

Performance

Contact resistance MAX.100m Ω (DC6V 1A)
Operation voltage 75%MAX.(Room temp)
Release voltage 5%MIN. (Room temp)
Operating time MAX.20ms
Release time MAX.10ms

Dielectric strength

Between contacts : 1,000VAC(1 min)

Between coil & contact: 4,500VAC(1 min)

Surge Resistance 7,000VAC(1.2/50 μ s)

Insulation Resistance 1,000M Ω (500VDC)

Temperature rise Coil : MAX.35K

Contact : MAX.40K

Vibration Error operation 10~55HZ(Amplitude 1.5mm)

Endurance 10~55HZ(Amplitude 1.5mm)

Shock Error operation 98m/s²

Endurance 980m/s²

Electrical Life 25A/250VAC, 65℃, 100,000ops

2HP/240VAC,65℃, 100,000ops

Mechanical Life 1,000,000ops

Operating temperature -40~105℃(No condensation)

Operating humidity 20~85%

SSA approval rating

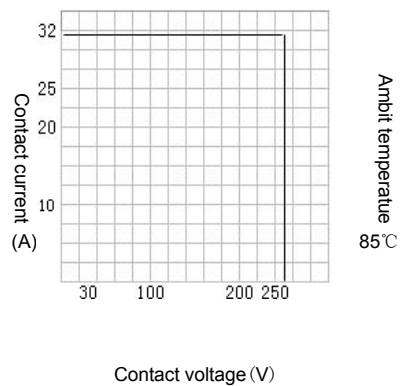
cULus 20A/250VAC 65℃,100,000ops
20A/25A/250VAC 85℃,100,000ops
20A/25A/277VAC 85℃,100,000ops
2HP/240VAC 65℃,100,000ops
20A/25A/250VAC 105℃,100,000ops
20A/25A/277VAC 105℃,100,000ops
1-1/2HP/277VAC 105℃,100,000ops
TUV 20A/250VAC 85℃,100,000ops
32A/250VAC 85℃,100,000ops
25A/250VAC 85℃,100,000ops
VDE 25A/250VAC 65℃, 80,000ops

Nomenclature

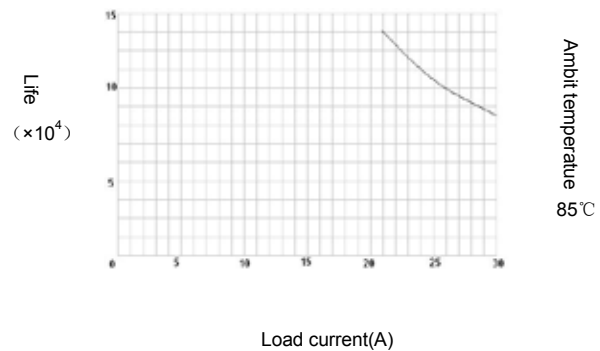
	RFL	-SS	-1	12	D	M	F	*	-F	-1	-XXX
Model designation	RFL										
Sealed type		SS: Flux-proof									
Number of poles			1: 1 pole								
Coil voltage				05: 5V, 09:9V, 12:12V, 24:24V							
Coil power				D: 900mW							
Contact configuration					M: 1 form A						
Terminal						Blank: Without Fast terminal	F: With Fast terminal				
Contact material											
Insulation Class											
Base Type											
Special request											

Reference data

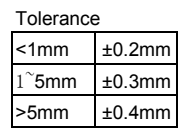
MAX.contact capacity



Life curve

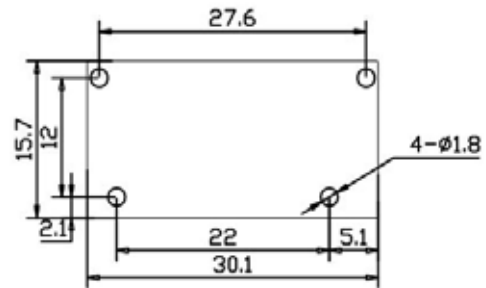


Outline dimension	
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Terminal assignment	PCB board layout
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Terminal assignment	PCB board layout
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Tolerance	
Pitch-row	±0.1mm
Aperture	+0.1mm

RJ Power Relay



- 10A power relay
- 200mW sensitive coil
- Dielectric strength between coil&contact:4000VAC
- Class F coil insulation
- Explosion proof product is available
- Meets IEC 60079 Anti-Explosion standard

Compliance Certification Number

CQC: CQC10002052739
cULus: E345228
TUV: R50222701

Contact

Contact configuration 1 form A
Contact material Ag Alloy

Contact specification

MAX. contact load 10A/277VAC
Rated contact current 10A
MAX. contact capacity 2,770VAC
MIN. applicable load DC5V, 100mA

Coil rating

D type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
5	89	56	450	≤ 3.75	≥ 0.25
9	50	180	450	≤ 6.75	≥ 0.45
12	37.5	320	450	≤ 9.00	≥ 0.60
24	18.8	1,280	450	≤ 18.00	≥ 1.20

L type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
5	40	125	200	≤ 3.75	≥ 0.25
9	22.2	405	200	≤ 6.75	≥ 0.45
12	16.7	720	200	≤ 9.00	≥ 0.60
24	8.3	2,880	200	≤ 18.00	≥ 1.20

MAX.allowable coil voltage:130% of rated coil voltage
(Room temperature)

Performance

Contact resistance MAX.100m Ω (DC6V 1A)
Operation voltage 75%MAX.(Room temp)
Release voltage 5%MIN. (Room temp)
Operating time MAX.20ms
Release time MAX.10ms
Dielectric strength Between contacts : 1,000VAC(1 min)
Between coil & contact: 4,000VAC (1 min)

Surge Resistance 5,000VAC(1.2/50 μ s)
Insulation Resistance 1,000M Ω (500VDC)
Temperature rise Coil : MAX.35K
Contact : MAX.40K

VibrationError operation 10~55HZ(Amplitude 1.5mm)
Endurance 10~55HZ(Amplitude 1.5mm)
Shock Error operation 98m/s²
Endurance 980m/s²
Electrical Life 10A/277VAC, 105°C, 100,000ops
1/3HP/240VAC,65°C, 30,000ops
Mechanical Life 1,000,000ops
Operating temperature -40~105°C(No condensation)
Operating humidity 20~85%

SSA approval rating

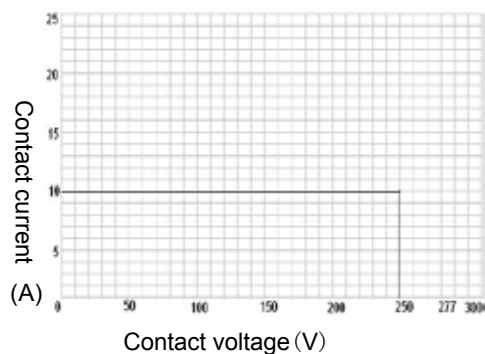
CQC	(DM1)	10A/250VAC	85°C,100,000ops
	(DM/LM)	5A/250VAC	85°C,100,000ops
	(DM2/LM2)	8A/250VAC	85°C,100,000ops
	(DM1)	10A/250VAC	85°C/105°C,100,000ops
		10A/277VAC	105°C,100,000ops
		1/3HP 240/277VAC	65°C,30,000ops
cULus	(LM1)	5A/30VDC	65°C,80,000ops
		10A/250VAC	105°C,100,000ops
		10A/277VAC	105°C,100,000ops
	(LM2)	8A/250VAC	105°C,100,000ops
		8A/277VAC	105°C,100,000ops
		(DM/LM)	5A/250VAC 85°C/105°C,100,000ops
	(DM)	5A/277VAC	105°C,100,000ops
		1/6HP/277VAC	105°C,100,000ops
		1/3HP 240/277VAC	65°C,30,000ops
	(DM2)	5A/30VDC	65°C,80,000ops
		8A/250VAC	85°C/105°C,100,000ops
		8A/277VAC	105°C,100,000ops
TUV	(LM)	1/4HP/240VAC	65°C,30,000ops
	(DM1)	3A/30VDC	65°C,80,000ops
		10A/250VAC	85°C,100,000ops
		(DM/LM)	5A/250VAC 85°C,100,000ops
	(DM2/LM2)	8A/250VAC	85°C,100,000ops

Nomenclature

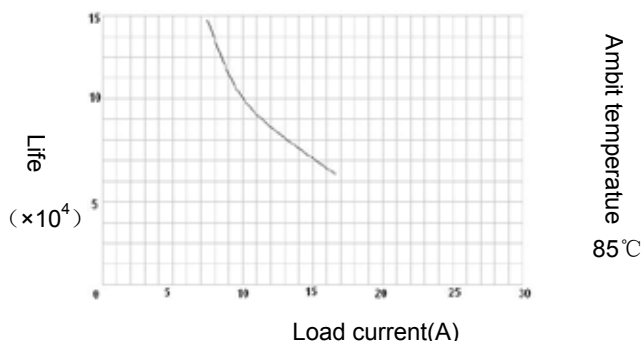
	RJ	-SS	-1	12	D	M	*	-F	-XXX
Model designation	RJ								
Slealed type		SS: Flux-proof							
Number of poles									
			1: 1 pole						
Coil voltage									
				05:5V, 09:9V, 12:12V, 24:24V					
Coil power									
				D: 450mW	L: 200mW				
Contact configuration									
				M: 1 form A					
Contact rating									
				Blank: 5A	1: 10A	2: 8A			
Insulation Class									
				Blank: Class A	F: Class F				
Special request									

Reference data

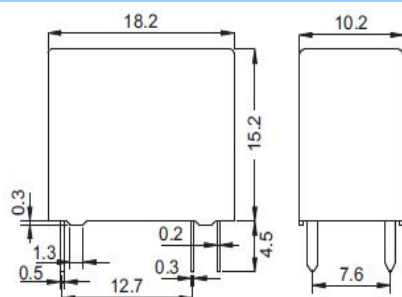
MAX.contact capacity



Life curve(10A)



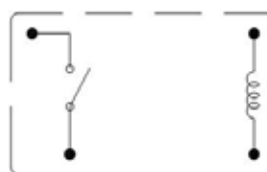
Outline dimension



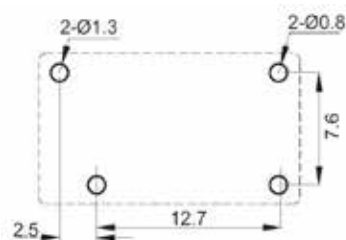
Tolerance

<1mm	±0.2mm
1~5mm	±0.3mm
>5mm	±0.4mm

Terminal assignment



PCB board layout



Tolerance

Pitch-row	±0.1mm
Aperture	+0.1mm

RJE Power Relay



- Control switch has enough insulation distance
- Flux-proof
- High sensitive coil
- Dielectric strength between coil&contact: 4000VAC
- Explosion proof product is available
- Meets IEC 60079 Anti-Explosion standard

Compliance Certification Number

CQC: CQC12002084196
cULus: E345228
TUV: R50246903

Contact

Contact configuration 1 form A, 1 form C

Contact material: Ag Alloy

Contact specification

MAX. contact load 10A/277VAC (1 form A)
5A/277VAC (1 form C N.O.)
3A/277VAC (1 form A N.C.)
Rated contact current 10A (1 form A)
5A (1 form C N.O.)
3A (1 form C N.C.)
MAX.contact capacity 2,770VA (1 form A)
1,385VA (1 form C N.O.)
831VA (1 form C N.C.)
MIN.applicable load DC5V, 100mA

Coil rating

D type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
5	79.4	63	400	≤ 3.75	≥ 0.25
9	44.6	202	400	≤ 6.75	≥ 0.45
12	33.3	360	400	≤ 9.00	≥ 0.60
24	16.7	1440	400	≤ 18.00	≥ 1.20

L type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
5	40.0	125	200	≤ 3.75	≥ 0.25
9	22.2	405	200	≤ 6.75	≥ 0.45
12	16.7	720	200	≤ 9.00	≥ 0.60
24	8.3	2880	200	≤ 18.00	≥ 1.20

MAX.allowable coil voltage:130% of rated coil voltage
(Room temperature)

Performance

Contact resistance MAX.100m Ω (DC6V 1A)
Operation voltage 75%MAX.(Room temp)
Release voltage 5%MIN. (Room temp)
Operating time MAX.20ms
Release time MAX.10ms

Dielectric strength Between contacts: 1,000VAC(1 min)
Between coil & contact: 4,000VAC(1 min)

Surge Resistance 5,000VAC(1.2/50 μ s)
Insulation Resistance 1,000M Ω (500VDC)
Temperature rise Coil : MAX.35K

Contact : MAX.40K
Vibration Error operation 10~55HZ(Amplitude 1.5mm)
Endurance 10~55HZ(Amplitude 1.5mm)

Shock Error operation 98m/s²
Endurance 980m/s²

Electrical Life 5A/277VAC, 105 $^{\circ}$ C, 100,000ops
5A(3A)/277VAC,105 $^{\circ}$ C, 100,000ops

Mechanical Life 1,000,000ops
Operating temperature -40~105 $^{\circ}$ C(No condensation)

Operating humidity 20~85%

SSA approval rating

CQC	(1 Form A)	5A/277VAC	105 $^{\circ}$ C,100,000ops
		10A/125VAC	105 $^{\circ}$ C,100,000ops
	(1 Form C)	N.O.: 5A/277VAC	105 $^{\circ}$ C,100,000ops
		N.C.: 3A/277VAC	105 $^{\circ}$ C,100,000ops
cULus	(1 Form A)	5A/277VAC	105 $^{\circ}$ C,100,000ops
		5A/30VDC	105 $^{\circ}$ C,100,000ops
		10A/125VAC	105 $^{\circ}$ C,100,000ops
		1/6HP 277VAC	105 $^{\circ}$ C, 30,000ops
	(1 Form C)	N.O.: 5A/277VAC	105 $^{\circ}$ C,100,000ops
		N.C.: 3A/277VAC	105 $^{\circ}$ C,100,000ops
		N.O.: 5A/30VDC	105 $^{\circ}$ C,100,000ops
		N.C.: 5A/30VDC	105 $^{\circ}$ C,100,000ops
TUV	(1 Form A)	5A/277VAC	105 $^{\circ}$ C,100,000ops
		10A/277VAC	105 $^{\circ}$ C,100,000ops
	(1 Form C)	N.O.: 5A/277VAC	105 $^{\circ}$ C,100,000ops
		N.C.: 3A/277VAC	105 $^{\circ}$ C,100,000ops

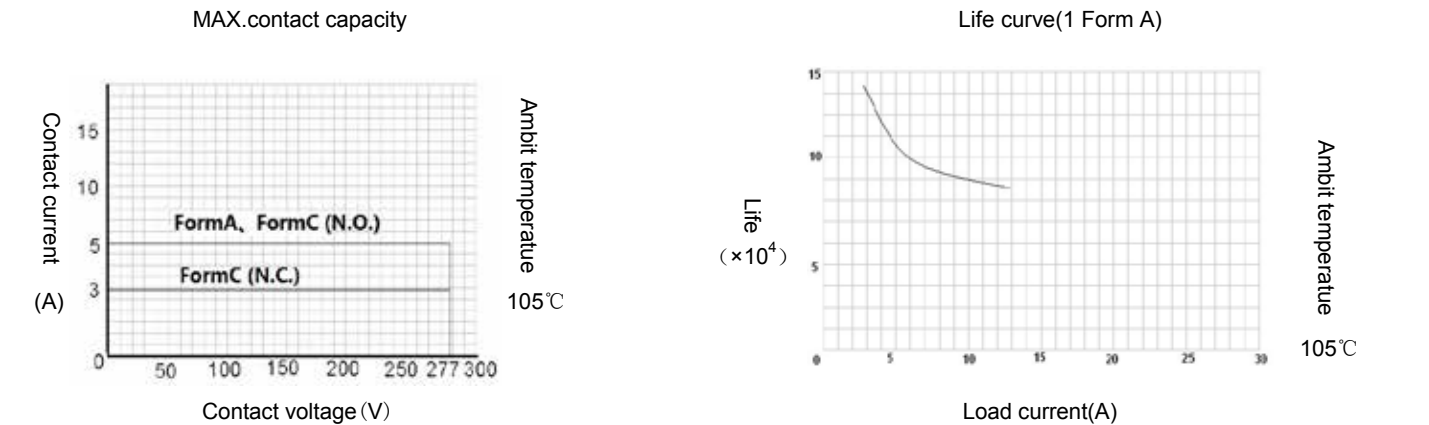


Nomenclature

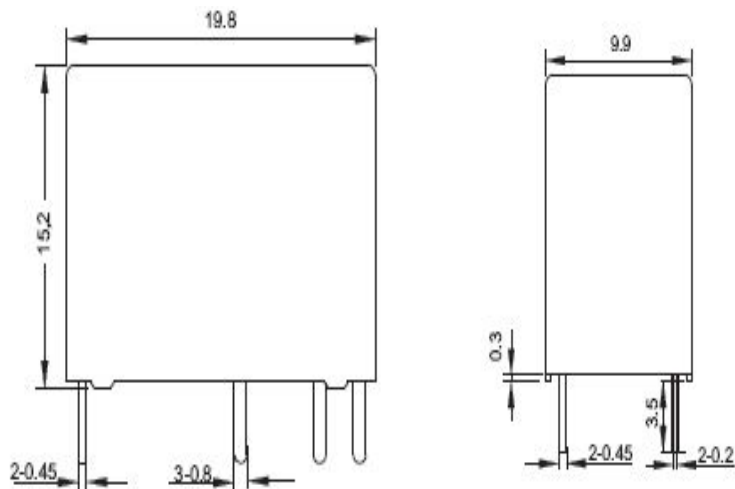
	RJE	-1	12	D	M	*	F	-XXX
Model designation	RJE							
Number of poles	1: 1 pole							
Coil voltage	05:5V, 09:9V, 12:12V, 24:24V							
Coil power	D: 400mW	L: 200mW						
Contact configuration	M: 1 form A	Blank: 1 form C						
Contact material	Blank: AgSnO ₂	Other numbers: other materials						
Insulation Class	Blank: Class A	F: Class F						

Special request

Reference data



Outline dimension

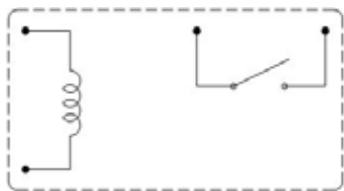


Tolerance

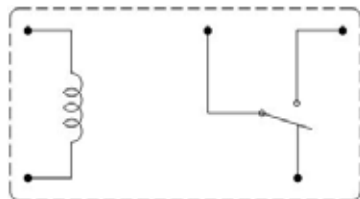
<1mm	±0.2mm
1~5mm	±0.3mm
>5mm	±0.4mm

Terminal assignment

1 Form A

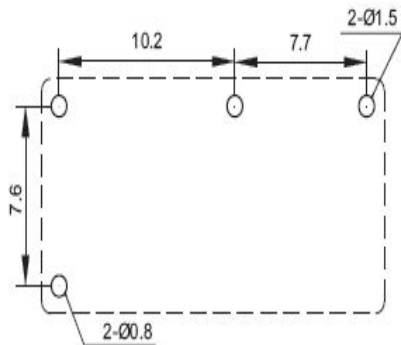


1 Form C



PCB board layout

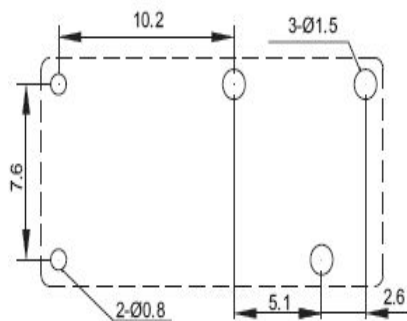
1 Form A



Tolerance

Pitch-row	±0.1mm
Aperture	+0.1mm

1 Form C



RMI Power Relay



Compliance Certification Number

CQC: CQC11002066332

cULus: E345228

TUV: R50242245

Contact

Contact configuration 1form A, 1form C

Contact material: Ag Alloy

Contact specification

MAX. contact load 10A/277VAC(1 form A)
N.O.10A/277VAC(1 form C N.O.)
N.C.5A/277VAC(1 form C N.C.)

Rated contact current 10A(1 form A)
10A(1 form C N.O.)
5A(1 form C N.C.)

MAX.contact capacity 2,770VA(1 form A)
2,770VA(1 form C N.O.)
1,385VA(1 form C N.C.)

MIN.applicable load DC5V, 100mA

Coil rating

L type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
5	108	46.3	540	≤ 3.75	≥ 0.25
9	60	150	540	≤ 6.75	≥ 0.45
12	44.9	267	540	≤ 9.00	≥ 0.60
18	30	600	540	≤ 13.50	≥ 0.90
24	22.5	1067	540	≤ 18.00	≥ 1.20

D type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
5	138.9	36	720	≤ 3.75	≥ 0.25
9	78.3	115	720	≤ 6.75	≥ 0.45
12	60	200	720	≤ 9.00	≥ 0.60
18	40	450	720	≤ 13.50	≥ 0.90
24	29.3	820	720	≤ 18.00	≥ 1.20

MAX.allowable coil voltage:130% of rated coil voltage(Room temperature)

·Dielectric strength between coil&contact: 5,000VAC

·Class F coil insulation

·Control switch has enough insulation distance

·Flux-proof type

Performance

Contact resistance MAX.100m Ω (DC6V 1A)

Operation voltage 75%MAX.(Room temp)

Release voltage 5%MIN. (Room temp)

Operating time MAX.20ms

Release time MAX.10ms

Dielectric strength Between contacts : 1,000VAC(1 min)
Between coil & contact: 5,000VAC(1 min)

Surge Resistance 1,000VAC(1.2/50 μ s)

Insulation Resistance 1,000M Ω (500VDC)

Temperature rise Coil : MAX.35K

Contact : MAX.40K

Vibration Error operation 10~55HZ(Amplitude 1.5mm)

Endurance 10~55HZ(Amplitude 1.5mm)

Shock Error operation 98m/s²

Endurance 980m/s²

Electrical Life 10A/277VAC, 105 $^{\circ}$ C, 100,000ops

10A(5A)/277VAC,105 $^{\circ}$ C, 100,000ops

Mechanical Life 1,000,000ops

Operating temperature -40~105 $^{\circ}$ C (No condensation)

Operating humidity 20~85%

SSA approval rating

CQC	(1Form A)	10A/277VAC	105 $^{\circ}$ C,100,000ops
		10A/250VAC	105 $^{\circ}$ C,100,000ops
	(1Form C)	N.O.:10A/277VAC	105 $^{\circ}$ C,100,000ops
		N.C.: 5A/277VAC	105 $^{\circ}$ C,100,000ops
		N.O.:10A/250VAC	105 $^{\circ}$ C,100,000ops
cULus	(1Form A)	N.C.: 5A/250VAC	105 $^{\circ}$ C,100,000ops
		10A/277VAC	105 $^{\circ}$ C,100,000ops
	(1Form C)	1/4HP 250VAC	105 $^{\circ}$ C, 30,000ops
		N.O.:10A/277VAC	105 $^{\circ}$ C,100,000ops
		N.C.: 5A/277VAC	105 $^{\circ}$ C,100,000ops
TUV	(1Form A)	10A/277VAC	105 $^{\circ}$ C,100,000ops
		N.O.:10A/277VAC	105 $^{\circ}$ C,100,000ops
		N.C.: 5A/277VAC	105 $^{\circ}$ C,100,000ops



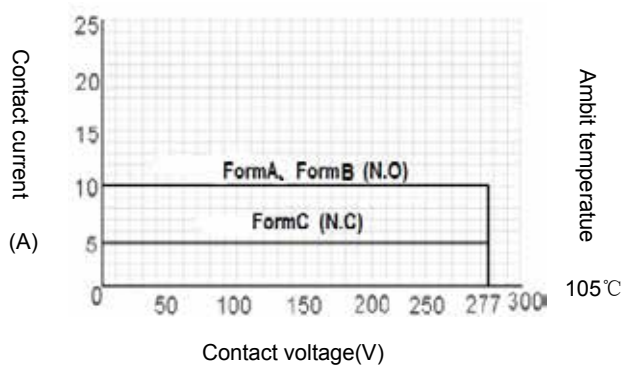
WangRong Electronics(Shenzhen) Co.,Ltd.

Nomenclature

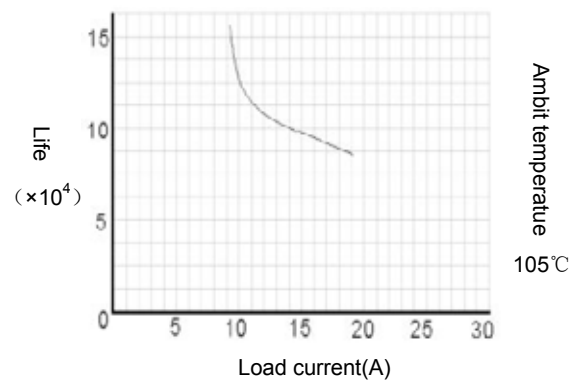
	RMI	-SS	-1	12	D	M	*	F	-XXX
Model designation	RMI								
Slealed type		SS: Flux-proof							
Number of poles									
Coil voltage									
Coil power									
Contact configuration									
Contact material									
Insulation Class									
Special request									

Reference data

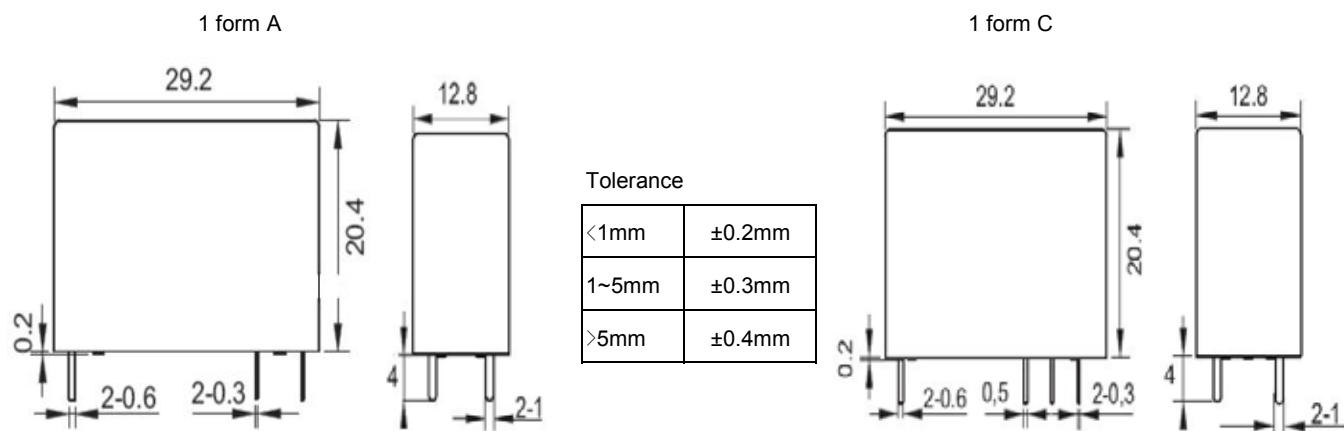
MAX.contact capacity



Life curve(Form A)



Outline dimension



Terminal assignment



PCB board layout



Tolerance

Pitch-row	±0.1mm
Aperture	+0.1mm

RM1H Power Relay



Compliance Certification Number

CQC: CQC11002066332

cULus: E345228

TUV: R50242245

Contact

Contact configuration 1 form A, 1 form C

Contact material: Ag Alloy

Contact specification

MAX. contact load 16A/277VAC(1 form A)
16A/277VAC(1 form C N.O.)
8A/277VAC(1 form C N.C.)

Rated contact current 16A (1 form A)
16A(1 form C N.O.)
8A(1 form C N.C.)

MAX.contact capacity 4,432VA(1 form A)
4,432VA(1 form C N.O.)
2,216VA(1 form C N.C.)

MIN.applicable load DC5V, 100mA

Coil rating

L type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
5	108	46.3	540	≤ 3.75	≥ 0.25
9	60	150	540	≤ 6.75	≥ 0.45
12	44.9	267	540	≤ 9.00	≥ 0.60
18	30	600	540	≤ 13.50	≥ 0.90
24	22.5	1,067	540	≤ 18.00	≥ 1.20

D type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
5	138.9	36	720	≤ 3.75	≥ 0.25
9	78.3	115	720	≤ 6.75	≥ 0.45
12	60	200	720	≤ 9.00	≥ 0.60
18	40	450	720	≤ 13.50	≥ 0.90
24	29.3	820	720	≤ 18.00	≥ 1.20

MAX.allowable coil voltage:130% of rated coil voltage(Room temperature)

- 16A power relay
- High capacity, high endurance
- Control switch has enough insulation distance
- Flux-proof type
- Meets IEC 60079 Anti-Explosion standard

Performance

Contact resistance MAX.100m Ω (DC6V 1A)

Operation voltage 75%MAX.(Room temp)

Release voltage 5%MIN. (Room temp)

Operating time MAX.20ms

Release time MAX.10ms

Dielectric strength Between contacts : 1,000VAC(1 min)
Between coil & contact: 5,000VAC(1 min)

Surge Resistance 10,000VAC(1.2/50 μ s)

Insulation Resistance 1,000M Ω (500VDC)

Temperature rise Coil : MAX.35K

Contact : MAX.40K

Vibration Error operation 10~55HZ(Amplitude 1.5mm)

Endurance 10~55HZ(Amplitude 1.5mm)

Shock Error operation 98m/s²

Endurance 980m/s²

Electrical Life 16A/277VAC, 105℃, 100,000ops
16A(8A)/277VAC,105℃,100,000ops

Mechanical Life 1,000,000ops

Operating temperature -40~105℃(No condensation)

Operating humidity 20~85%

SSA approval rating

CQC	(1Form A)	16A/277VAC	105℃,100,000ops
		16A/250VAC	105℃,100,000ops
	(1Form C)	N.O.: 16A/277VAC	105℃,100,000ops
		N.C.: 8A/277VAC	105℃,100,000ops
cULus	(1Form A)	N.O.: 16A/250VAC	105℃,100,000ops
		N.C.: 8A/250VAC	105℃,100,000ops
	(1Form C)	16A/277VAC	105℃,100,000ops
		1/3HP 250VAC	105℃, 30,000ops
TUV	(1Form C)	N.O.: 16A/277VAC	105℃,100,000ops
		N.C.: 8A/277VAC	105℃,100,000ops
	(1Form A)	16A/277VAC	105℃,100,000ops
		N.O.: 16A/277VAC	105℃,100,000ops
		N.C.: 8A/277VAC	105℃,100,000ops

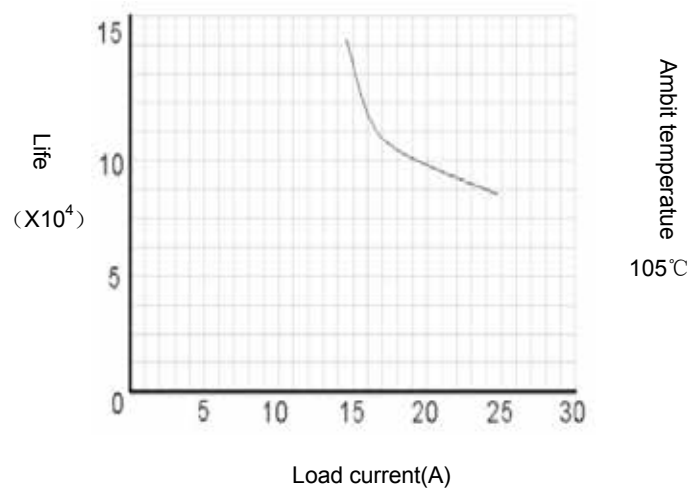
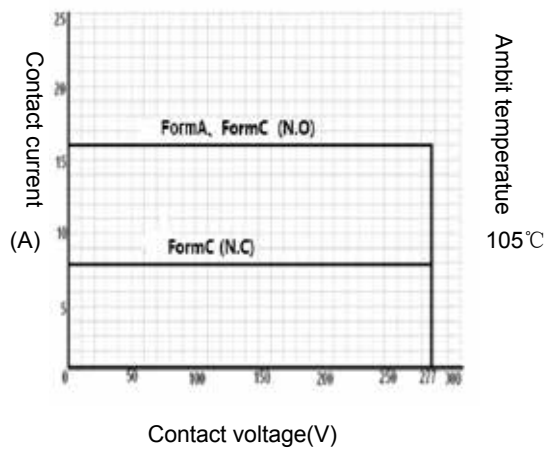
Nomenclature

	RMIH	-SS	-1	12	D	M	*	F	-XXX
Model designation	RMIH								
Slealed type	SS:Flux-proof								
Number of poles	1:1 pole								
Coil voltage	05:5V, 09:9V, 12:12V, 18:18V, 24:24V								
Coil power	D: 720mW	L: 540mW							
Contact configuration	M: 1 form A	Blank: 1 form C							
Contact material	Blank: AgSnO ₂	Other numbers: other materials							
Insulation Class	Blank:: Class A	F: Class F							
Special request									

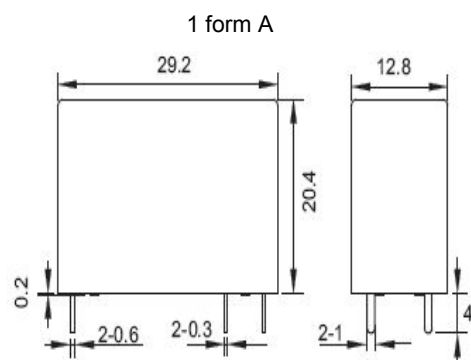
Reference data

MAX.contact capacity

Life curve(Form A)

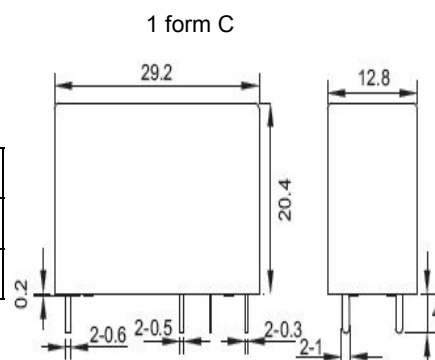


Outline dimension



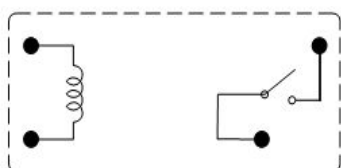
Tolerance

<1mm	±0.2mm
1~5mm	±0.3mm
>5mm	±0.4mm

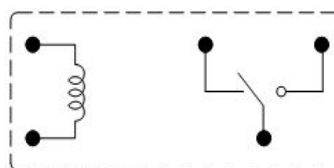


Terminal assignment

1 form A

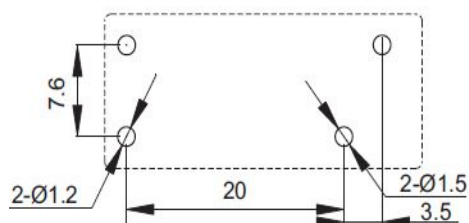


1 form C

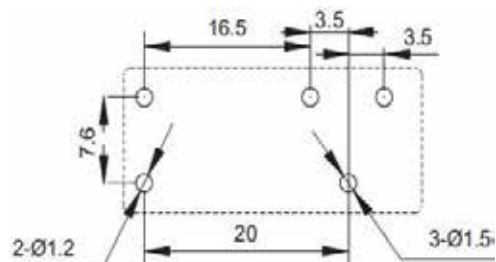


PCB board layout

1 form A



1 form C



Tolerance

Pitch-row	±0.1mm
Aperture	+0.1mm

RMIF Power Relay



- 17A power relay
- High capacity, high endurance
- Control switch has enough insulation distance
- Flux-proof type

#187 Fast Terminal

Compliance Certification Number

CQC: CQC12002076605

cULus: E345228

TUV: R50227054

Contact

Contact configuration 1 form A

Contact material : Ag Alloy

Contact specification

MAX. contact load 17A/277VAC

Rated contact current 17A

MAX.contact capacity 4,709VA

MIN.applicable load DC5V, 100mA

Coil rating

L type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
5	108	46.3	540	≤ 3.75	≥ 0.25
9	60	150	540	≤ 6.75	≥ 0.45
12	44.9	267	540	≤ 9.00	≥ 0.60
18	30	600	540	≤ 13.50	≥ 0.90
24	22.5	1,067	540	≤ 18.00	≥ 1.20

D type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
5	138.9	36	720	≤ 3.75	≥ 0.25
9	78.3	115	720	≤ 6.75	≥ 0.45
12	60	200	720	≤ 9.00	≥ 0.60
18	40	450	720	≤ 13.50	≥ 0.90
24	29.3	820	720	≤ 18.00	≥ 1.20

MAX.allowable coil voltage:130% of rated coil voltage(Room temperature)

Performance

Contact resistance MAX.100m Ω (DC6V 1A)

Operation voltage 75%MAX.(Room temp)

Release voltage 5%MIN. (Room temp)

Operating time MAX.20ms

Release time MAX.10ms

Dielectric strength Between contacts: 1,000VAC(1 min)

Between coil & contact: 5,000VAC(1 min)

Surge Resistance 10,000VAC(1.2/50 μ s)

Insulation Resistance 1,000M Ω (500VDC)

Temperature rise Coil : MAX.35K

Contact : MAX.40K

Vibration Error operation 10~55HZ(Amplitude 1.5mm)

Endurance 10~55HZ(Amplitude 1.5mm)

Shock Error operation 98m/s²

Endurance 980m/s²

Electrical Life 17A/277VAC, 105℃, 100,000ops

Mechanical Life 1,000,000ops

Operating temperature -40~105℃(No condensation)

Operating humidity 20~85%

SSA approval rating

CQC 16A/277VAC 105℃, 100,000ops

17A/277VAC 105℃, 100,000ops

20A/125VAC 105℃, 60,000ops

cULus 16A/277VAC 105℃, 100,000ops

17A/277VAC 105℃, 100,000ops

20A/125VAC 105℃, 100,000ops

TUV 16A/250VAC 105℃, 100,000ops

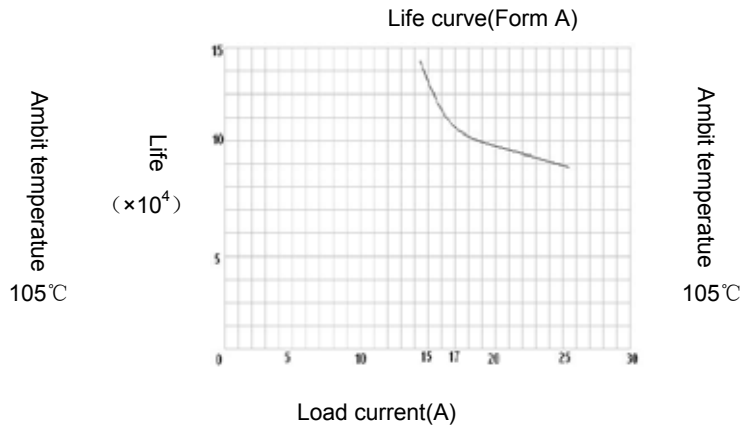
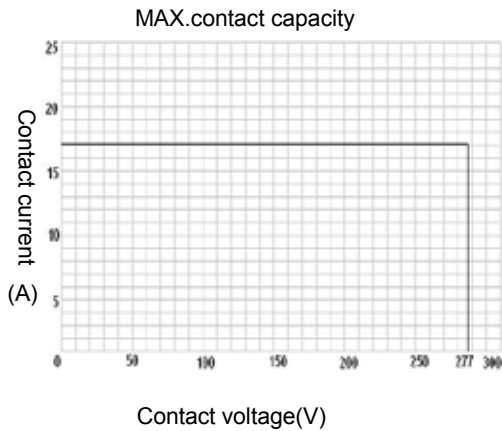
17A/250VAC 105℃, 100,000ops

20A/125VAC 105℃, 60,000ops

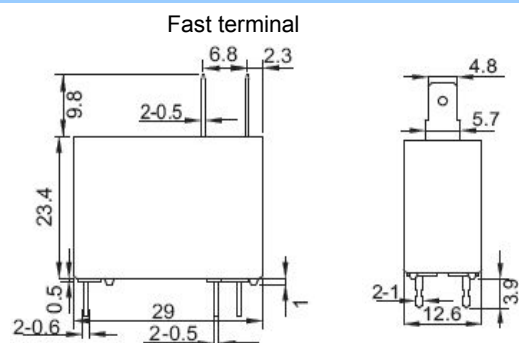
Nomenclature

	RMIF	-1	12	D	M	*	F	-A	-XXX
Model designation	RMIF								
Number of poles									
1: 1 pole									
Coil voltage									
05:5V,09:9V,12:12V,18:18V,24:24V									
Coil power									
L: 540mW D: 720mW									
Contact configuration									
M: 1 form A									
Contact material									
Blank: AgSnO ₂ Other numbers: other materials									
Insulation Class									
Blank: Class A F: Class F									
Contact type									
Blank: Standard type									
A: Without Movable Contact Terminal and Stationary Contact Terminal									
B: Stationary Contact Terminal Only									
C: Movable Contact Terminal Only									
D: With Dummy Movable Contact Terminal and Stationary Contact Terminal									
P: PCB Terminal Only									
Special request									

Reference data

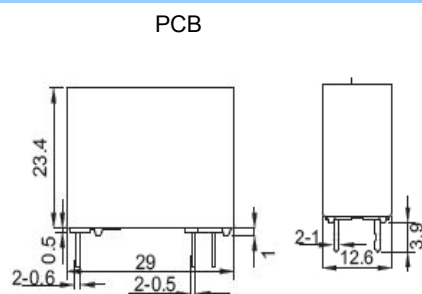


Outline dimension

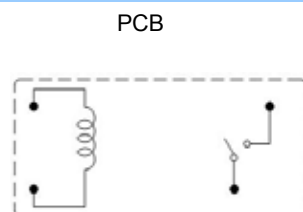
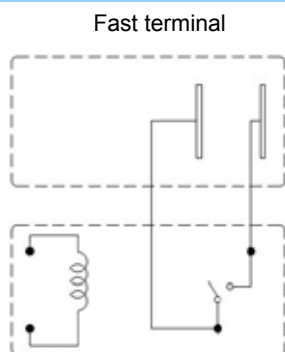


Tolerance

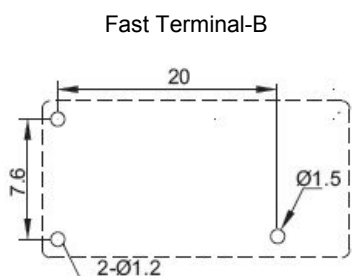
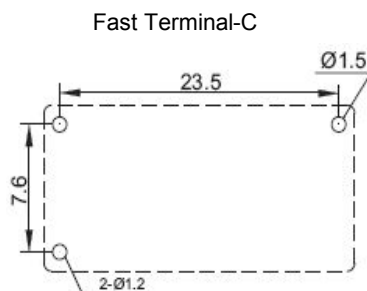
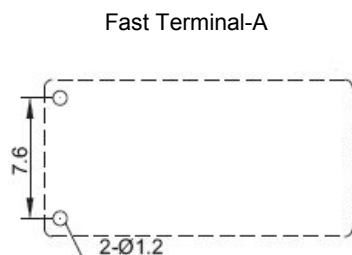
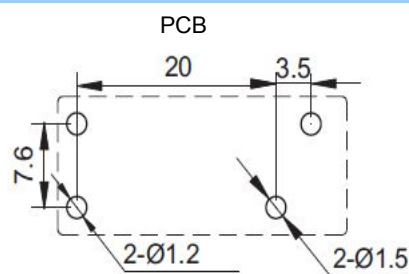
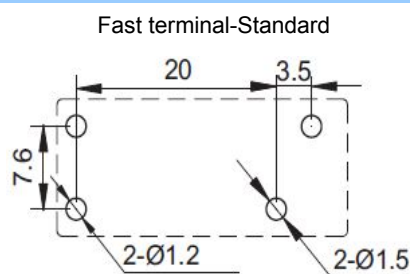
< 1mm	±0.2mm
1~5mm	±0.3mm
> 5mm	±0.4mm



Terminal assignment

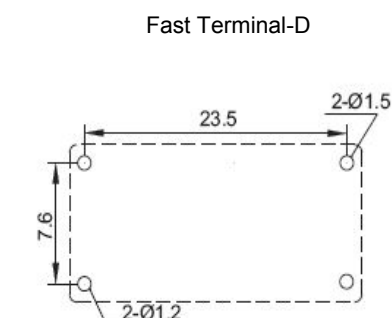


PCB board layout



Tolerance

Pitch-row	±0.1mm
Aperture	+0.1mm



R42 Power Relay



Compliance Certification Number

cULus: E341569

TUV: R 50317908

CE: M.2014.103.3158

Contact

Contact configuration 1 form A, 1 form C
2 form A, 2 form C

Contact material : Ag Alloy

Contact specification

MAX. contact load 20A/250VAC(one pole-T)
12A/250VAC(one pole)
7A/250VAC(two poles)

Rated contact current 20A(one pole-T)
12A(one pole)
7A(two poles)

MAX.contact capacity 5,000VA(one pole-T)
3,000VA(one pole)
1,750VA(two poles)

MIN.applicable load DC5V, 100mA

Coil rating

D Type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
3	240.0	12.5	720	≤ 2.25	≥ 0.15
5	138.9	36	720	≤ 3.75	≥ 0.25
6	120.0	50	720	≤ 4.50	≥ 0.30
9	78.3	115	720	≤ 6.75	≥ 0.45
12	60.0	200	720	≤ 9.00	≥ 0.60
24	29.3	820	720	≤ 18.00	≥ 1.20
48	14.5	3,300	720	≤ 36.00	≥ 2.40
100/110	7.0	14,144	720	$\leq 75/82.5$	$\geq 5/5.5$

• 20A power relay

• TV Rated available

• Standard type & high sensitive type available

Performance

Contact resistance MAX.100m Ω (DC6V 1A)

Operation voltage

DC 75%MAX.(Room temp)

AC 80%MAX.(Room temp)

Release voltage

DC 5%MIN. (Room temp)

AC 30%MIN. (Room temp)

Operating time MAX.20ms

Release time MAX.10ms

Dielectric strength

Open Contacts: 1,000VAC(1 min)

Coil& Contact: 5,000VAC(1 min)

Adjacent Contacts: 2,500VAC(1 min)

Insulation Resistance 1,000M Ω (500VDC)

Temperature rise Coil : MAX.35K

Contact : MAX.40K

Vibration Error operation 10~55HZ(Amplitude 1.5mm)

Endurance 10~55HZ(Amplitude 1.5mm)

Shock Error operation 98m/s²

Endurance 980m/s²

Electrical Life 100,000ops

Mechanical Life 1,000,000ops

Operating temperature -40~85℃(No condensation)

Operating humidity 20~85%

SSA approval rating

cULus 1A-T/1C-T: 16A/250VAC、20A/125VAC
20A/30VDC

TV-3 120VAC(NO)

TV-8 125VAC(NO)

1A/1C: 12A/250VAC、12A/30VDC

TV-3 120VAC(NO)

TV-5 125VAC(NO)

2A/2C: 5A/250VAC、5A/30VDC

8A/125VAC

7A 250VAC(NO)

7A 30VDC(NO)

TV-3 120VAC(NO)

TUV 1A-T/1C-T: 16A/250VAC、16A/30VDC

1A/1C: 12A/250VAC、12A/30VDC

2A/2C: 5A/250VAC、5A/30VDC

Coil rating

L Type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
3	176.5	17	530	≤ 2.25	≥ 0.15
5	106.4	47	530	≤ 3.75	≥ 0.25
6	88.0	68	530	≤ 4.50	≥ 0.30
9	58.0	155	530	≤ 6.75	≥ 0.45
12	44.4	270	530	≤ 9.00	≥ 0.60
24	21.8	1,100	530	≤ 18.00	≥ 1.20
48	10.9	4,400	530	≤ 36.00	≥ 2.40
100/110	5.3	18,860	530	$\leq 75/82.5$	$\geq 5/5.5$

MAX.allowable coil voltage:130% of rated coil voltage(Room temperature)
(Room temperature)

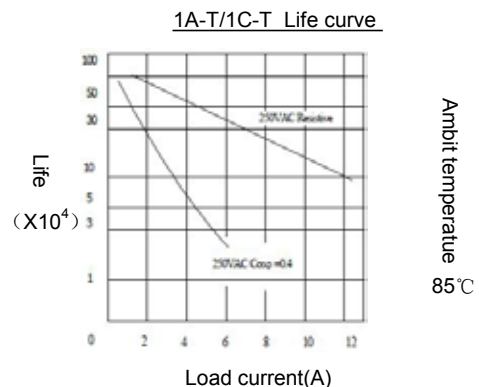
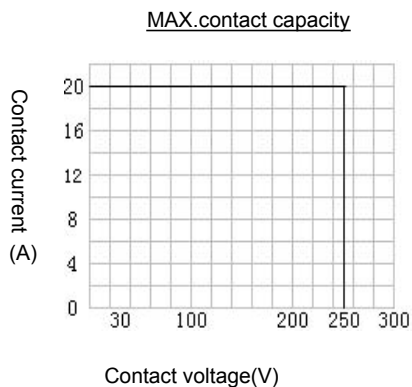
A Type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(VA)	(VDC)	(VDC)
6	150.0	16.5	0.9~1.2	≤ 4.50	≥ 0.30
12	75.0	63	0.9~1.2	≤ 9.00	≥ 0.60
24	37.5	250	0.9~1.2	≤ 18.00	≥ 1.20
110/120	8.2/10	5,600	0.9~1.2	$\leq 82.5/90.0$	$\geq 5.5/6$
220/240	4.1/5	22,000	0.9~1.2	$\leq 165/180.0$	$\geq 11/12$

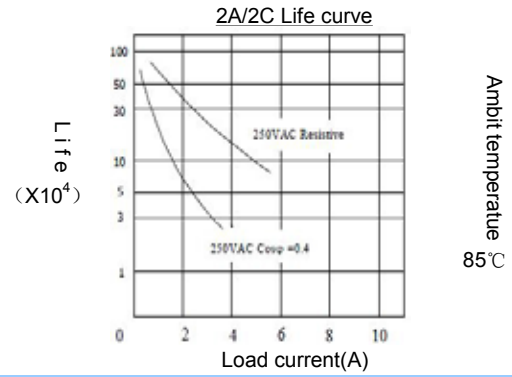
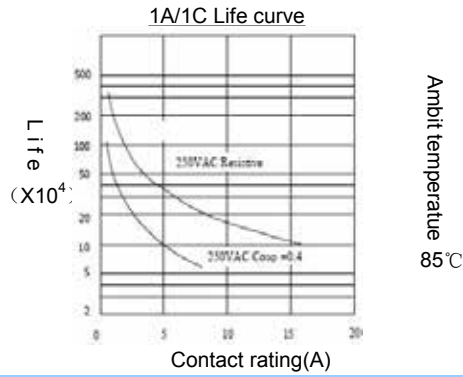
Nomenclature

Model designation	R42	-1	12	D	M	F	T	-S	3	-XXX
Number of poles	1: 1 pole 2: 2 poles									
Coil voltage	DC: 3-110V AC:6-240V									
Coil type	D: 720mW L: 530mW A: AC									
Contact configuration	M: 1 form A Blank: 1 form C									
Insulation Class	Blank:Class A F: Class F									
Terminal type	Blank: Single foot T: Double feet (For one pole contact only)									
Sealed type	Blank: Standard S: Flux-proof									
Contact gap	Blank: Standard 3: 3.0mm GAP (The distance between the Stationary contact and Movable contact is 1.5 mm)									
Special request										

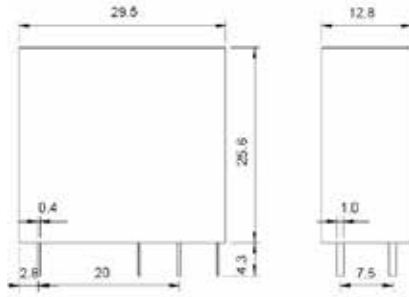
Reference data



Reference data



Outline dimension



Tolerance

<1mm	±0.2mm
1~5mm	±0.3mm
>5mm	±0.4mm

Terminal assignment



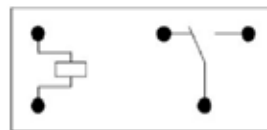
1 Form A



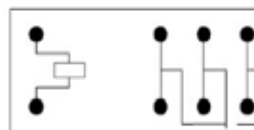
1 Form A (T type)



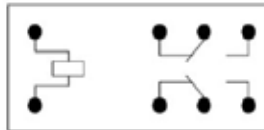
2 Form A



1 Form C

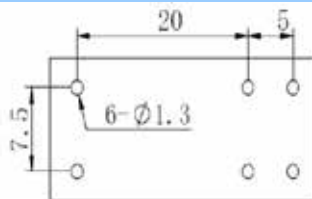


1 Form C (T type)

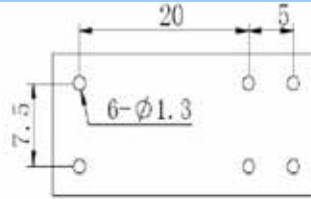


2 Form C

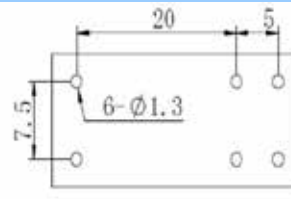
PCB board layout



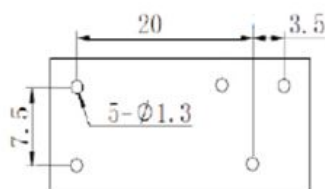
1 Form A



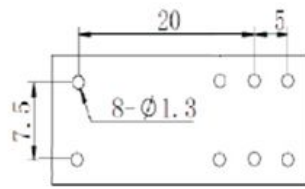
1 Form A (T type)



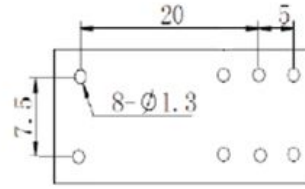
2 Form A



1 Form C



1 Form C (T type)



2 Form C

Tolerance

Pitch-row	±0.1mm
Aperture	+0.1mm

R53 Power Relay



- 40A power relay
- High capacity, high endurance
- Various Mounting Methods
- Multiple pin structures

Compliance Certification Number

CQC: CQC14002112000

cULus: E341569

TUV: R50281254

Contact

Contact configuration 1form A, 1form C

Contact material : Ag Alloy

Contact specification

MAX. contact load 40A/277VAC

Rated contact current 40A

MAX.contact capacity 11,080VA

MIN.applicable load DC5V, 100mA

Coil rating

DCType

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
5	185	27	900	≤ 3.75	≥ 0.25
6	150	40	900	≤ 4.50	≥ 0.30
9	93	97	900	≤ 6.75	≥ 0.45
12	77	155	900	≤ 9.00	≥ 0.60
18	47	380	900	≤ 13.50	≥ 0.90
24	36	660	900	≤ 18.00	≥ 1.20
36	25	1,440	900	≤ 27.00	≥ 1.80
48	19	2,560	900	≤ 36.00	≥ 2.40

AC Type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(VA)	(VDC)	(VDC)
6	200	10	1.2~1.8	≤ 4.50	≥ 0.30
12	100	43	1.2~1.8	≤ 9.00	≥ 0.60
24	50	160	1.2~1.8	≤ 18.00	≥ 1.20
110	11	3,160	1.2~1.8	≤ 82.50	≥ 5.50
220	5.5	13,490	1.2~1.8	≤ 165.00	≥ 11.00

MAX.allowable coil voltage:130% of rated coil voltage

(Room temperature)

Performance

Contact resistance MAX.100m Ω (DC6V 1A)

Operation voltage DC75%MAX.(Room temp)

AC85%MAX.(Room temp)

Release voltage DC5%MIN. (Room temp)

AC10%MIN. (Room temp)

Operating time MAX.20ms

Release time MAX.10ms

Dielectric strength

Between contacts : 1,500VAC(1 min)

Between coil & contact: 2,500VAC(1 min)

Insulation Resistance 1,000M Ω (500VAC)

Temperature rise Coil : MAX.35K

Contact : MAX.40K

Vibration Error operation 10~55HZ(Amplitude 1.5mm)

Endurance 10~55HZ(Amplitude 1.5mm)

Shock Error operation 98m/s²

Endurance 980m/s²

Electrical Life 100,000ops

Mechanical Life 1,000,000ops

Operating temperature -40~85℃(No condensation)

Operating humidity 20~85%

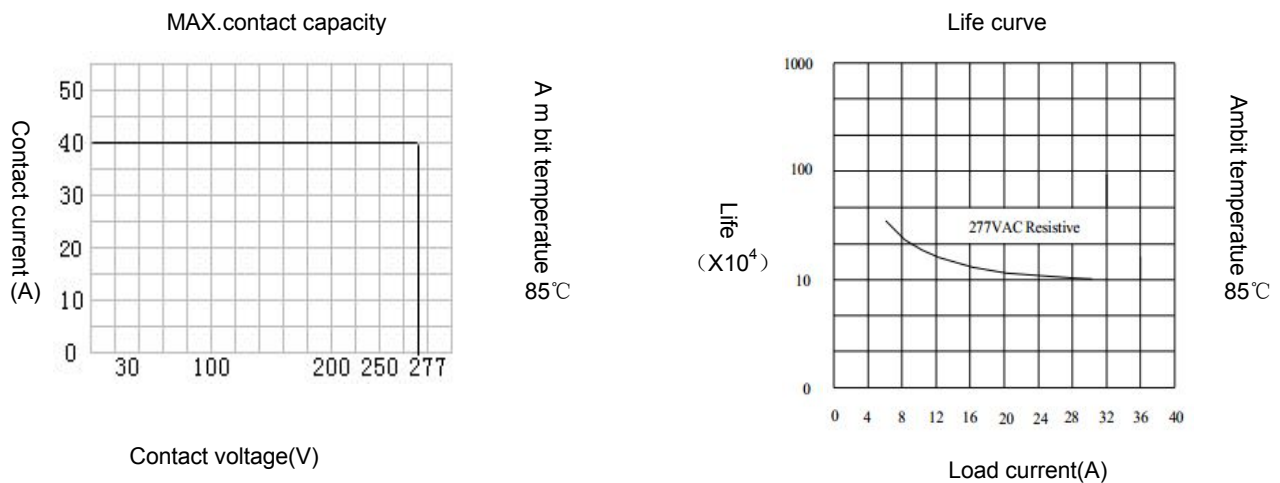
SSA approval rating

CQC	1Form A	30A/240VAC	85℃	20,000ops
	1Form B	20A/240VAC	85℃	20,000ops
	1Form C	NO:30A/NC:20A 240VAC	85℃	20,000ops
TUV	1Form A	30A/250VAC	85℃	10,000ops
		20A/30VDC	85℃	50,000ops
		10A/30VDC	85℃	100,000ops
	1Form B	10A/250VAC	85℃	10,000ops
		10A/30VDC	85℃	50,000ops
		8A/30VDC	85℃	100,000ops
	1Form C	NO:30A NC:10A 250VAC	85℃	10,000ops
		NO:20A NC:10A 30VDC	85℃	50,000ops
		NO:10A NC:8A 30VDC	85℃	100,000ops
cULus	1Form A	20A/277VAC, 20A/30VDC, 30A/30VDC,		
		40A/277VAC,15A/277VAC		
		FLA 12A/250VAC 2HP,FLA 16A/125VAC 1HP		
	1Form B	16.0FLA/96.0LRA 240VAC		
		15A/277VAC,10A/30VDC,15A/30VDC		
		8A/277VAC		
	FLA	4.9A/250VAC 1/2HP,FLA 5.8A/125VAC 1/4HP		
		10.0FLA/58.0LRA 240VAC		
		10.0FLA/58.0LRA 240VAC		
	1Form C	NO/NC:11.2FLA/67.2LRA,10.3FLA/61.8LRA		
		NO/NC:19.8A/277VAC,30A/240VAC,30A/277VAC		

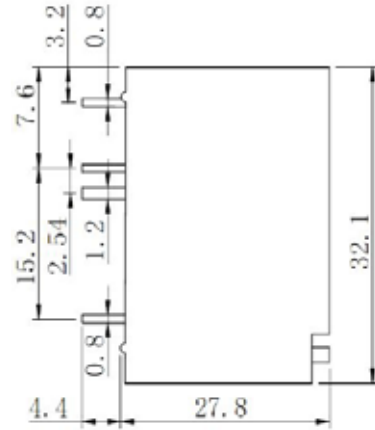
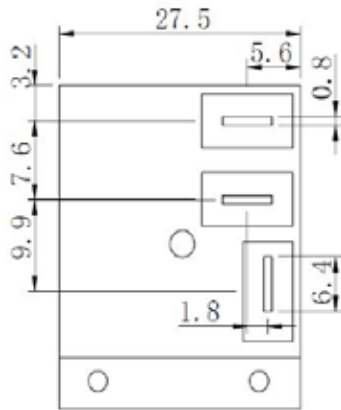
Nomenclature

	R53A	-1	12	D	M	F	-1	-P	-S	-XXX
Model designation										
R53 type Cover: Standard (Without Dust Cover)										
R53G type Cover: Standard (With Dust Cover)										
R53A type Cover: Double faced Connection I type										
R53B type Cover: Double faced Connection II type										
R53E type Cover: Double faced Connection III type										
R53E1 type Cover: Double faced Connection IV type										
R53K type Cover: Double faced Connection V type										
R53M type Cover: External Connection										
Number of poles										
1: 1 pole										
Coil voltage										
DC: 5V,9V,12V,24V,36V,48V										
AC: 110V,220V										
Coil type										
D: DC (abt.900 mw)										
A: AC (abt. 1.2VA-1.8VA)										
Contact configuration										
M: 1 form A										
Blank: 1 form C										
Insulation Class										
Blank: Class B										
F: Class F										
COM Terminal type										
1: one COM Terminal (No co-terminal between the Coil Terminals)										
2: two COM Terminals (One co-terminal between the Coil Terminals)										
Suspension type										
Blank: Standard										
P: Rated voltage: 24VDC										
Suspension voltage: 16VDC										
Sealed type										
Blank: Standard										
S: Washable										
Special request										

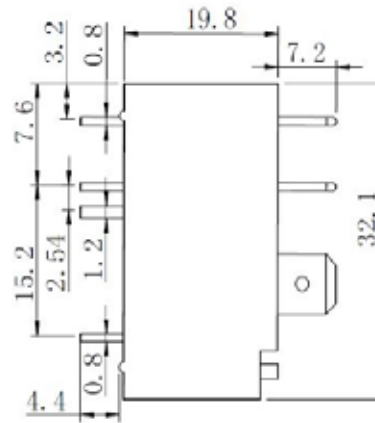
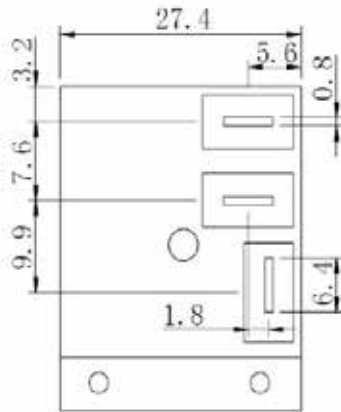
Reference data



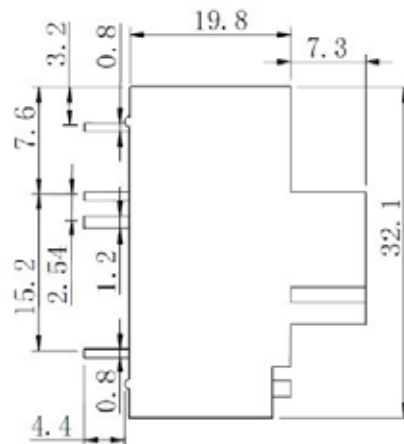
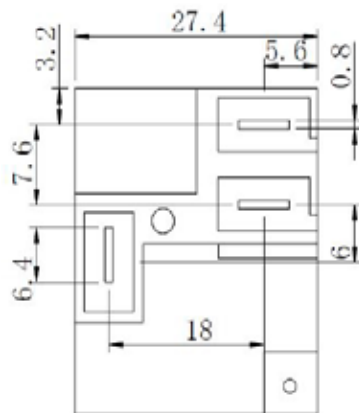
R53A



R53B

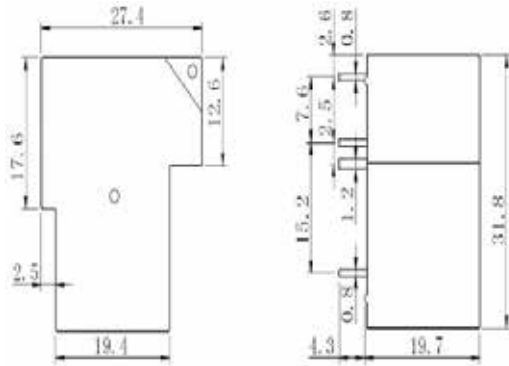


R53E

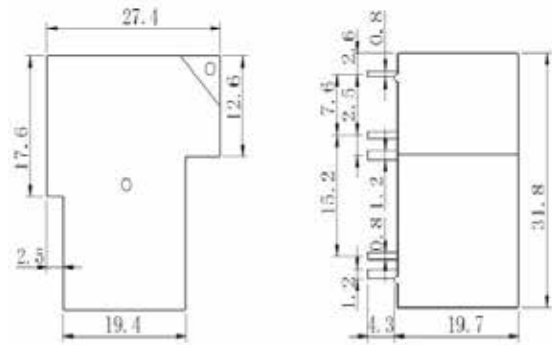


Outline dimension

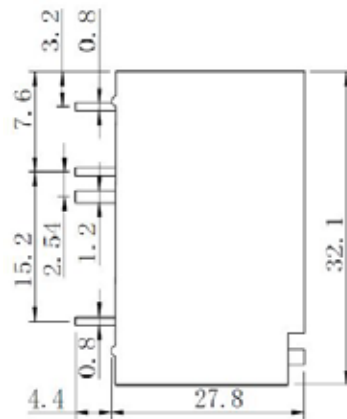
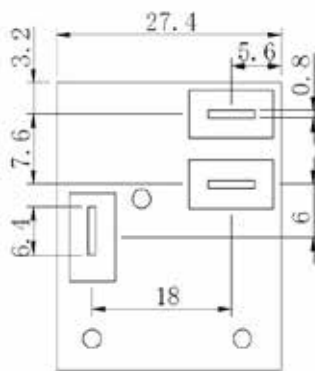
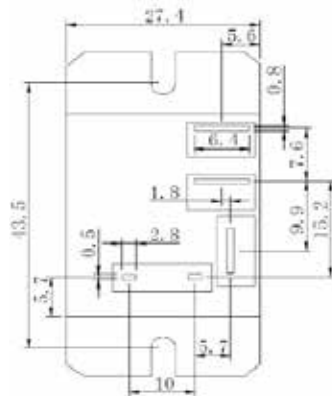
R53G



One COM Terminal



Two COM Terminals

R53K**R53M**

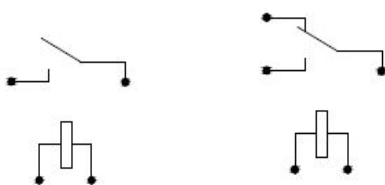
Tolerance

<1mm	±0.2mm
1~5mm	±0.3mm
>5mm	±0.4mm

Terminal assignment

PCB board layout

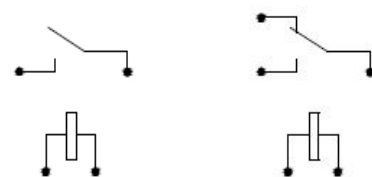
R53A



1A

1C

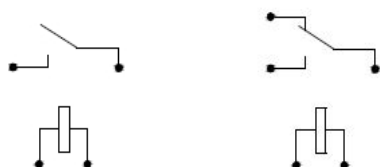
R53B



1A

1C

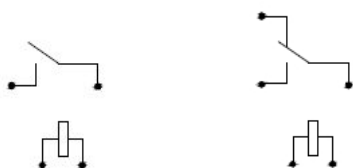
R53E



1A

1C

R53G(One COM Terminal)

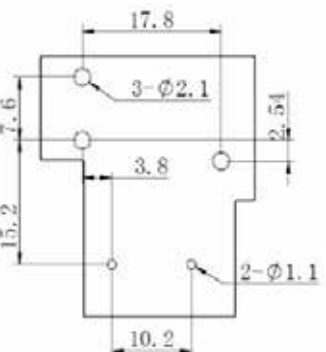
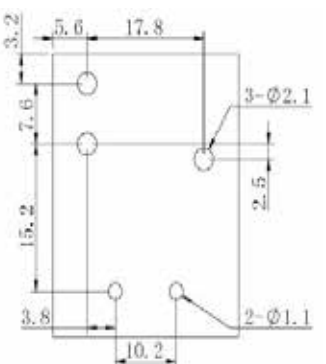
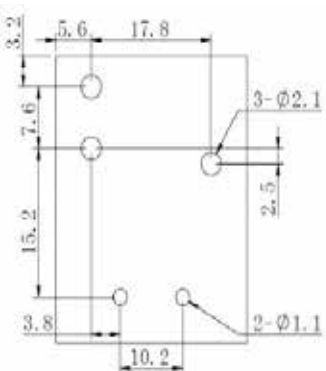
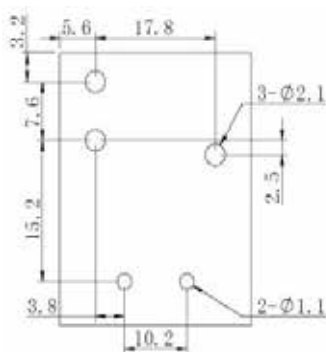


1A

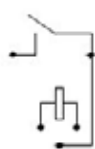
1C

Tolerance

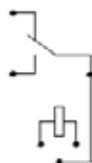
Pitch-row	±0.1mm
Aperture	+0.1mm



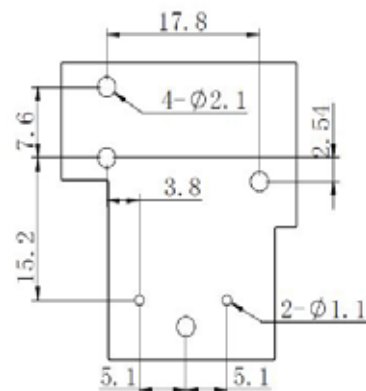
R53G(Two COM Terminals)



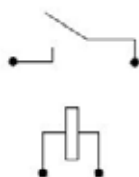
1A



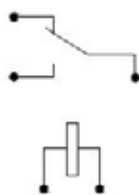
1C



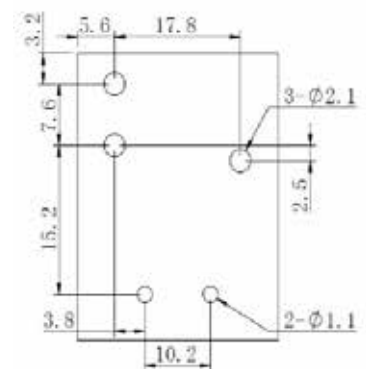
R53K



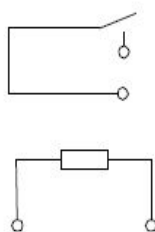
1A



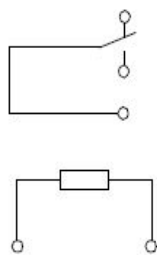
1C



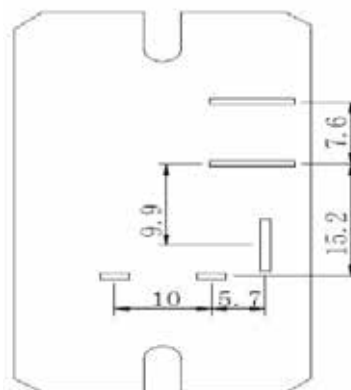
R53M



1A



1C



Tolerance

Pitch-row	$\pm 0.1\text{mm}$
Aperture	$+0.1\text{mm}$

R81 Power Relay



- Crossed contacts, highly reliable
- TV Rated available
- 2 Form A ultra-thin relay

Compliance Certification Number

cULus: E341569

TUV:

Contact

Contact configuration 1 form A, 2 form A

Contact material : Ag Alloy

Contact specification

MAX. contact load 10A/250VAC(1 Form A)
5A/125VAC(2 Form A)

Rated contact current 10A(1 Form A)
5A(2 Form A)

MAX.contact capacity 2,500VA(1 Form A)
625VA(2 Form A)

MIN.applicable load DC5V, 100mA

Coil rating

D Type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
3	176.5	17	540	≤ 2.25	≥ 0.15
5	108.7	47	540	≤ 3.75	≥ 0.25
6	88	68	540	≤ 4.50	≥ 0.30
9	60	150	540	≤ 6.75	≥ 0.45
12	44.4	270	540	≤ 9.00	≥ 0.60
24	21.8	1,100	540	≤ 18.00	≥ 1.20
48	11.2	4,300	540	≤ 36.00	≥ 2.40

L Type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
3	83.3	36	250	≤ 2.25	≥ 0.15
5	50.0	100	250	≤ 3.75	≥ 0.25
6	41.7	144	250	≤ 4.50	≥ 0.30
9	27.7	325	250	≤ 6.75	≥ 0.45
12	20.7	580	250	≤ 9.00	≥ 0.60
24	10.4	2,300	250	≤ 18.00	≥ 1.20
48	5.2	9,210	250	≤ 36.00	≥ 2.40

MAX.allowable coil voltage:130% of rated coil voltage(Room temperature)

Performance

Contact resistance MAX.100m Ω (DC6V 1A)
Operation voltage 75%MAX.(Room temp)
Release voltage 5%MIN. (Room temp)
Operating time MAX.20ms
Release time MAX.10ms

Dielectric strength :

Open Contacts: 1, 000VAC(1 min)

Coil to Contacts: 4, 000VAC(1 min)

Adjacent Contacts: 1, 000VAC(1 min)

Surge Resistance 4,000VAC(1.2/50 μ s)

Insulation Resistance 1,000M Ω (500VDC)

Temperature rise Coil : MAX.35K

Contact : MAX.40K

Vibration Error operation 10~55HZ(Amplitude 1.5mm)

Endurance 10~55HZ(Amplitude 1.5mm)

Shock Error operation 98m/s²

Endurance 980m/s²

Electrical Life 100,000ops

Mechanical Life 1,000,000ops

Operating temperature -40~85 $^{\circ}$ C (No condensation)

Operating humidity 20~85%

SSA approval rating

cULus (1 Form A) 10A/250VAC
10A/30VDC
TV-3 250VAC
TV-5 250VAC
TV-8 250VAC
(2 Form A) 5A/125VAC
3A/125VAC
8A/50VAC
5A/50VAC
5A/30VDC
3A/30VDC

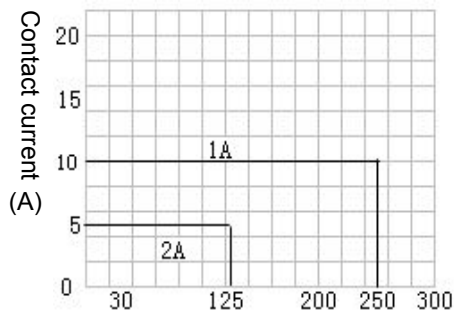
Nomenclature

	R81	-1	12	D	M	*	-S	-XXX
Model designation	R81							
Number of poles								
		1: 1 pole 2: 2 poles						
Coil voltage								
		3-48: 3VDC-48VDC (1A)						
		3.5.6.9.12.24.48VDC (2A)						
Coil power								
		D:540mW L:250mW (1 Form A)						
Contact configuration								
		M: 1 form A						
Insulation Class								
		Blank: Class A						
Sealed type								
		Blank: Standard S: Flux-proof (2 form A)						

Special request

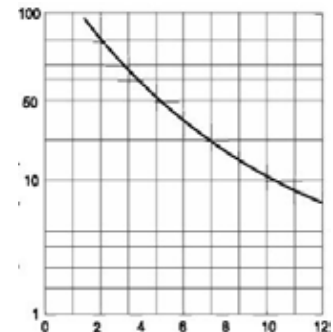
Reference data

MAX.contact capacity



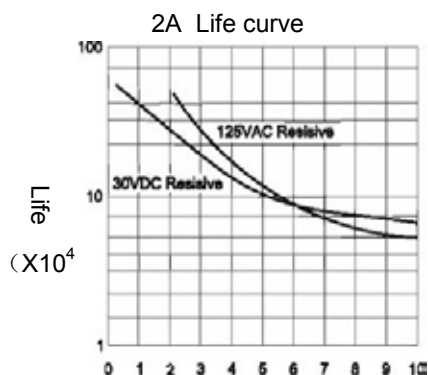
Ambit temperature
85℃

1A Life curve



Ambit temperature
85℃

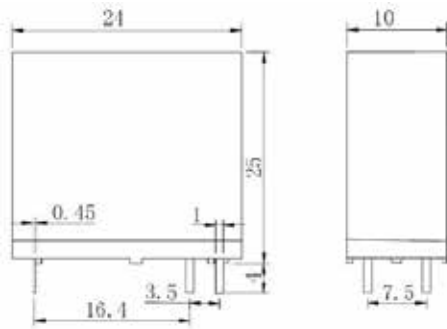
2A Life curve



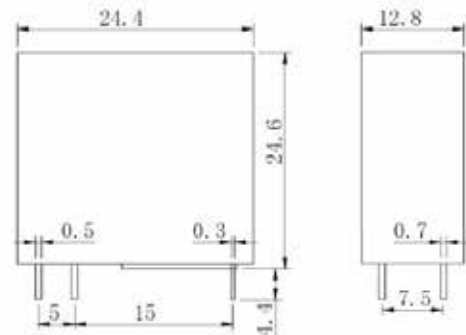
Ambit temperature
85℃

Contact current(A)

Outline dimension



1 Form A

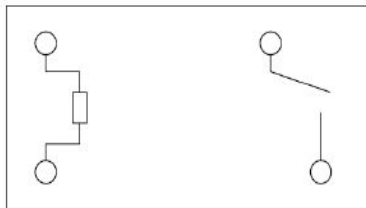


2 Form A

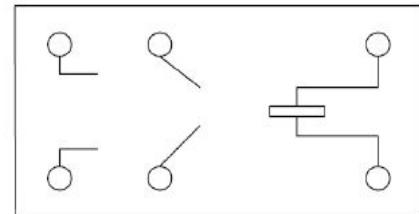
Tolerance

< 1mm	±0.2mm
1~5mm	±0.3mm
> 5mm	±0.4mm

Terminal assignment

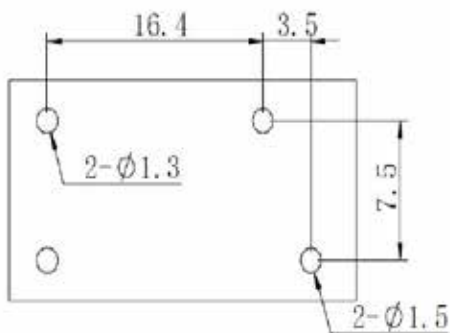


1 Form A

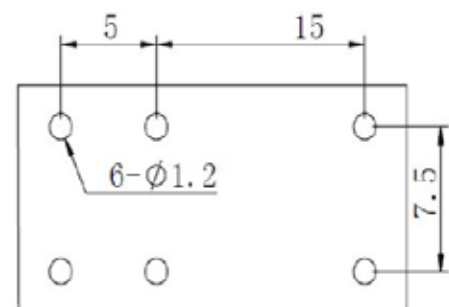


2 Form A

PCB board layout



1 Form A



2 Form A

Tolerance

Pitch-row	±0.1mm
Aperture	+0.1mm

RM Magnetic latching Relay



- Only needs pulsed excitation, single or double coils available
- Manual-switch controled
- High capacity, can be switched to 120A/250VAC
- If requires, welding accessories is available

Compliance Certification Number

CE: M.2014.103.3158

Contact

Contact configuration 1 form A, 1form B

Contact material : Ag Alloy

Contact specification

MAX. contact load 120A/250VAC

Rated contact current 120A

MAX.contact capacity 25,000VA

MIN.applicable load DC12V, 100mA

Coil rating

60A Series

Rated voltage	Coil resistance		Operating power		Operation Voltage	Release Voltage
	Single Coil	Double Coils	Single Coil	Double Coils		
(VDC)	(Ω±10%)		(mW)		(VDC)	(VDC)
6	36	18+18	1000	2000	≤4.50	≥0.30
9	81	41+41	1000	2000	≤6.75	≥0.45
12	144	72+72	1000	2000	≤9.00	≥0.60
24	576	288+288	1000	2000	≤18.00	≥1.20
48	2304	152+1152	1000	2000	≤36.00	≥2.40

80A/90A Series

Rated voltage	Coil resistance		Operating power		Operation Voltage	Release Voltage
	Single Coil	Double Coils	Single Coil	Double Coils		
(VDC)	(Ω±10%)		(mW)		(VDC)	(VDC)
6	24	12+12	1500	3000	≤4.50	≥0.30
9	54	27+27	1500	3000	≤6.75	≥0.45
12	96	48+48	1500	3000	≤9.00	≥0.60
24	384	192+192	1500	3000	≤18.00	≥1.20
48	1536	768+768	1500	3000	≤36.00	≥2.40

100/120A Series

Rated voltage	Coil resistance		Operating power		Operation Voltage	Release Voltage
	Single Coil	Double Coils	Single Coil	Double Coils		
(VDC)	(Ω±10%)		(mW)		(VDC)	(VDC)
6	15	7.5+7.5	2400	4800	≤4.50	≥0.30
9	38	19+19	2400	4800	≤6.75	≥0.45
12	60	30+30	2400	4800	≤9.00	≥0.60
24	240	120+120	2400	4800	≤18.00	≥1.20
48	960	480+480	2400	4800	≤36.00	≥2.40

MAX.allowable coil voltage:130% of rated coil voltage(Room temperature)

Performance

Contact resistance MAX.100mΩ(DC6V 1A)

Operation voltage 75%MAX.(Room temp)

Release voltage 5%MIN. (Room temp)

Operating time MAX.20ms

Release time MAX.10ms

Dielectric strength

Between contacts : 1,800VAC(1 min)(OFF)

2,000VAC(1 min)(100A, OFF)

Between coil &contacts: 4,000VAC(1 min)

Surge Resistance 1,000VAC(1.2/50μs)

Insulation Resistance 1,000MΩ(500VDC)

Temperature rise Coil : MAX.35K

Contact : MAX.40K

Vibration Error operation 10~55HZ(Amplitude 1.5mm)

Endurance 10~55HZ(Amplitude 1.5mm)

Shock Error operation 98m/s²

Endurance 980m/s²

Electrical Life 10,000ops

Mechanical Life 100,000ops

Operating temperature -40~70℃(No condensation)

Operating humidity 20~85%

SSA approval rating

60A/250VAC 10,000ops

80A/250VAC 10,000ops

90A/250VAC 10,000ops

100A/250VAC 10,000ops

120A/250VAC 10,000ops

Nomenclature

RM -1 12 B 1 D S -A -XXX

Model designation

RM

Number of poles

1:1 pole

Coil voltage

06:6V;09:9V;12:12V;24:24V;48:48V

Contact configuration

B: 1 form B M: 1 form A

Contact rating

1: 60A/250VAC 2: 80A/250VAC
3: 90A/250VAC 4: 100A/250VAC 5: 120A/250VAC

Polarity

D: Standard polarity F: Reverse polarity

Coil poles

S: Single coil W: Double coils

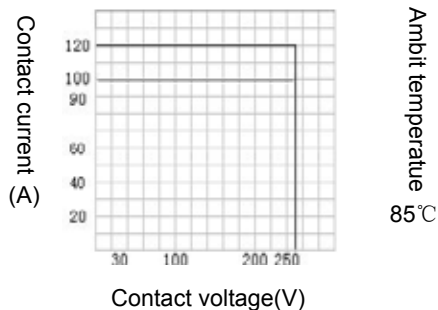
Terminal distance

A: coil pin distance 5mm, bending pin B: coil pin distance 5mm, straight pin
C: coil pin distance 10mm, bending pin D: coil pin distance 10mm, straight pin

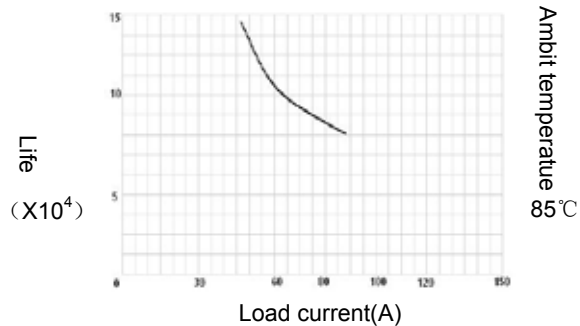
Special request

Reference data

MAX.contact capacity

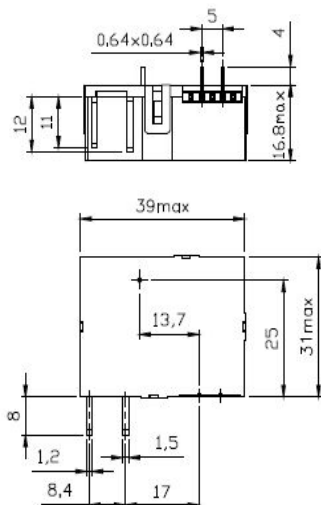


Life curve(60 A)

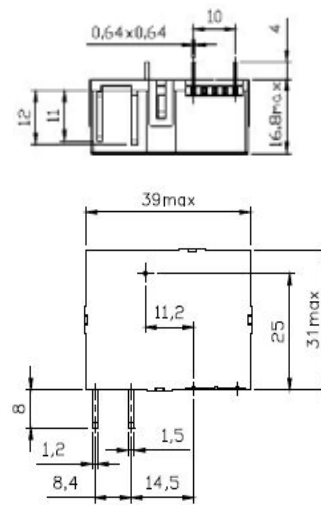


Outline dimension

Single coil(bending pin) 5.0mm

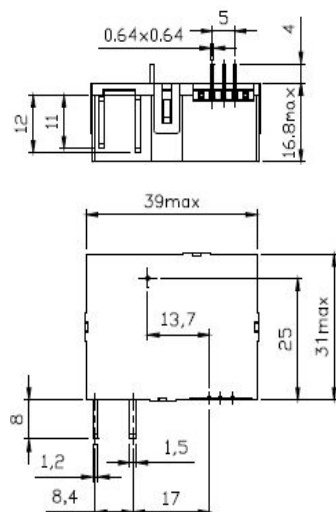


Single coil(bending pin) 10.0mm

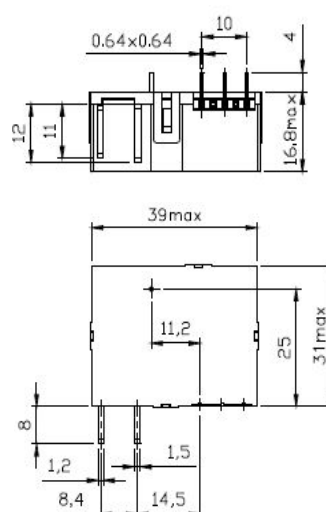


Outline dimension

Double coils(bending pin) 5.0mm

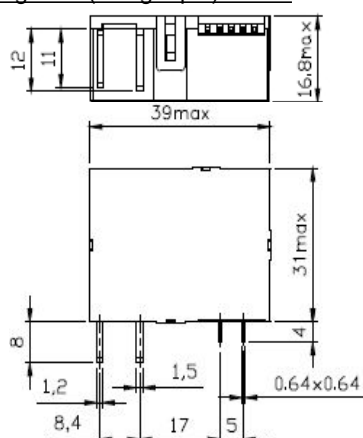


Double coils(bending pin) 10.0mm

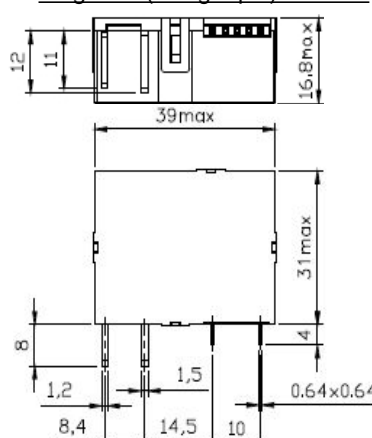


Outline dimension

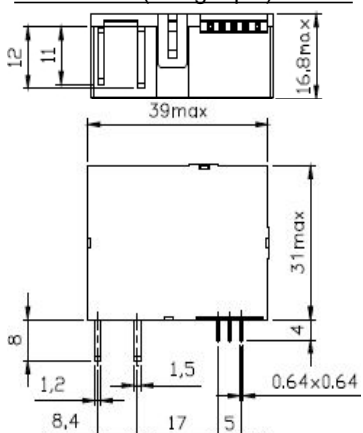
Single coil(straight pin)5.0mm



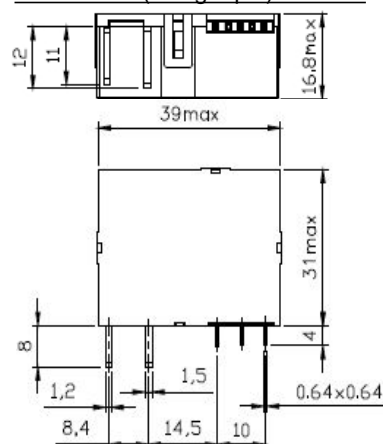
Single coil(straight pin) 10.0mm



Double coils(straight pin) 5.0mm

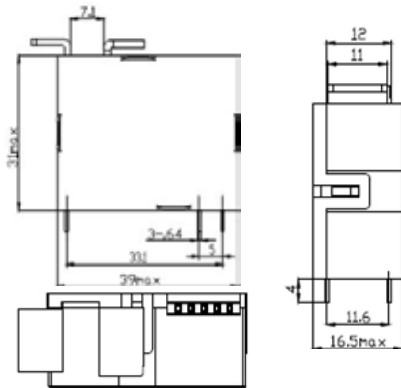


Double coils(straight pin) 10.0mm



Outline dimension

Single coil(straight pin)

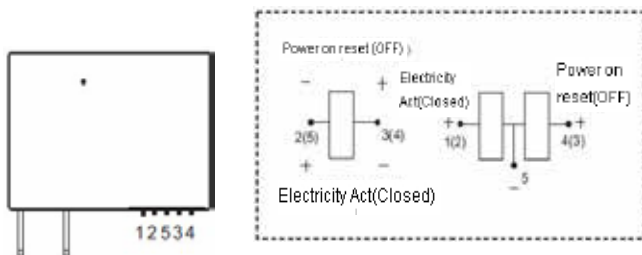


Tolerance

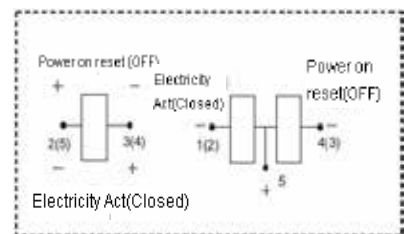
< 1mm	±0.2mm
1~5mm	±0.3mm
> 5mm	±0.4mm

Terminal assignment

Part 1

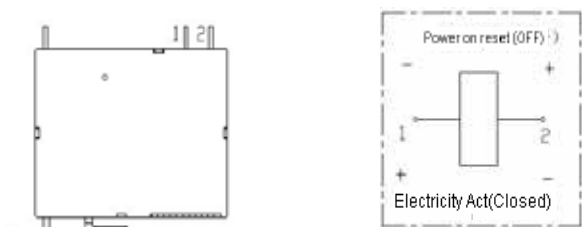


Standard polarity

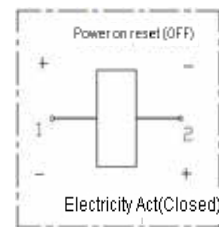


Reverse polarity

Part 2



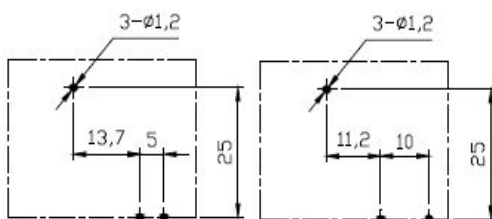
Standard polarity



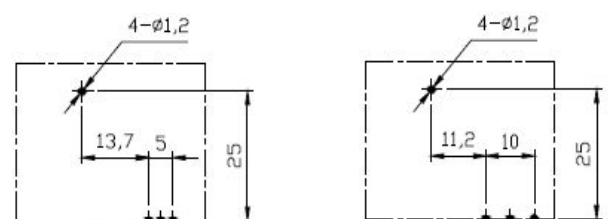
Reverse polarity

PCB board layout

Single coil

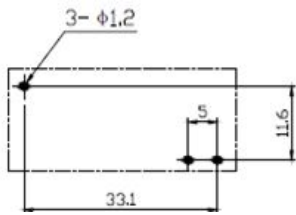


Double coils



PCB board layout

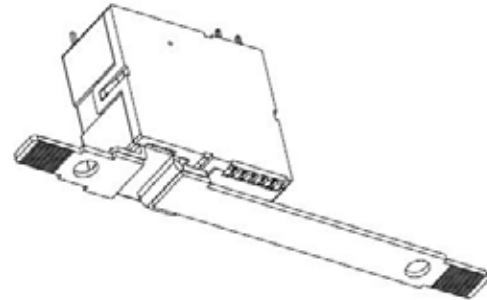
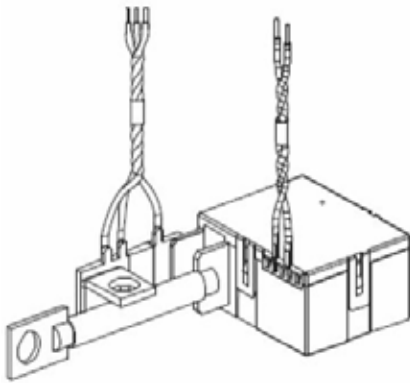
Single coil(straight pin)



Tolerance

Pitch-row	±0.1mm
Aperture	+0.1mm

With External Connction



* Standard type

RSA Signal Relay



- 1A power small relay
- 150mW sensitive coil
- Dielectric strength between coil&contact: 1000VAC
- Class F Coil

Contact

Contact configuration 1 form C

Contact material : Ag Alloy

Contact specification

MAX. contact load 0.5A/125VAC

Rated contact current 1A

MAX.contact capacity 62.5VAC

MIN.applicable load DC100mV, 1mA

Coil rating

D type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
3	66.7	45	200	≤ 2.40	≥ 0.30
5	40	125	200	≤ 4.00	≥ 0.50
6	33.3	180	200	≤ 4.80	≥ 0.60
9	22.2	405	200	≤ 7.20	≥ 0.90
12	17	720	200	≤ 9.60	≥ 1.20
24	8.3	2,880	200	≤ 19.20	≥ 2.40

L type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
3	50	60	150	≤ 2.40	≥ 0.30
5	29.9	167	150	≤ 4.00	≥ 0.50
6	25.0	240	150	≤ 4.80	≥ 0.60
9	16.7	540	150	≤ 7.20	≥ 0.90
12	12.5	960	150	≤ 9.60	≥ 1.20
24	6.3	3,840	150	≤ 19.20	≥ 2.40

MAX.allowable coil voltage:130% of rated coil voltage(Room temperature)

Performance

Contact resistance MAX.100m Ω (DC6V 1A)

Operation voltage 80%MAX.(Room temp)

Release voltage 10%MIN. (Room temp)

Operating time MAX.5ms

Release time MAX.5ms

Dielectric strength

Between contacts: 400VAC(1 min)

Between Coil & Contact: 1,000VAC(1 min)

Insulation Resistance 1,000M Ω (500VDC)

Temperature rise Coil : MAX.35K

Contact : MAX.40K

Vibration Error operation 10~55HZ(Amplitude 1.5mm)

Endurance 10~55HZ(Amplitude 1.5mm)

Shock Error operation 98m/s²

Endurance 980m/s²

Electrical Life 0.5A/125VAC, 70℃, 100,000ops

Mechanical Life 1,000,000ops

Operating temperature -30~70℃(No condensation)

Operating humidity 35~85%

SSA approval rating

0.5A/125VAC 70℃ 100,000ops

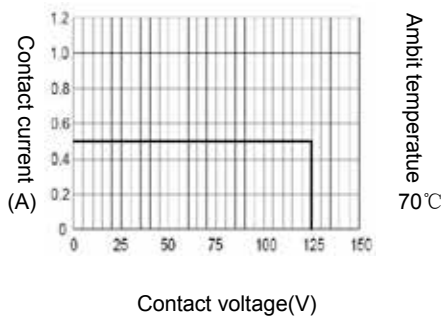
1A/24VDC 70℃ 100,000ops

Nomenclature

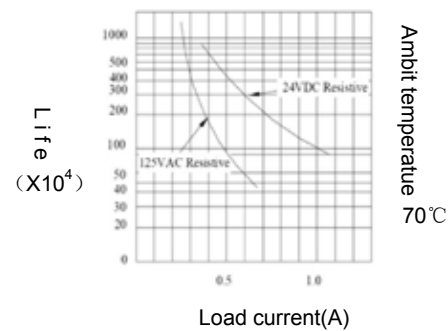
	RSA	-1	12	D	*	F	-S	-XXX
Model designation	RSA							
Number of poles	1: 1 pole							
Coil voltage	03:3V, 05:5V, 06:6V, 09:9V, 12:12V, 24:24V							
Coil power	D: 200mW L: 150mW							
Contact configuration	Blank: Form C							
Insulation Class	Blank:Class A F: Class F							
Sealed type	Blank:Standard S: Washable							
Special request								

Reference data

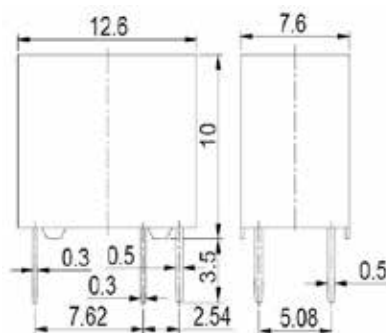
MAX.contact capacity



Life curve(Form A)



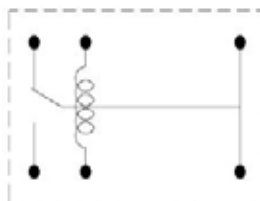
Outline dimension



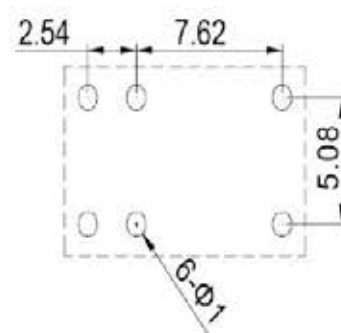
Tolerance

<1mm	±0.2mm
1~5mm	±0.3mm
>5mm	±0.4mm

Terminal assignment



PCB board layout



Tolerance

Pitch-row	±0.1mm
Aperture	+0.1mm

RSB Signal Relay



Compliance Certification Number

cULus: E341569

Contact

Contact configuration 2 form C

Contact material : Ag Alloy

Contact specification

MAX. contact load 1A/125VAC

Rated contact current 2A

MAX.contact capacity 125VAC

MIN.applicable load DC100mV, 0.5mA

Coil rating

D type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
4.5	80.4	56	360	≤ 2.25	≥ 0.23
5	71.4	70	360	≤ 3.75	≥ 0.25
6	60.0	100	360	≤ 4.50	≥ 0.30
12	30.0	400	360	≤ 9.00	≥ 0.60
24	15.0	1,600	360	≤ 18.00	≥ 1.20

M type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
4.5	44.6	101	200	≤ 2.25	≥ 0.23
5	40.0	125	200	≤ 3.75	≥ 0.25
6	33.3	180	200	≤ 4.50	≥ 0.30
12	16.7	720	200	≤ 9.00	≥ 0.60
24	8.3	2,880	200	≤ 18.00	≥ 1.20

MAX.allowable coil voltage:130% of rated coil voltage(Room temperature)

- 2A power small relay
- 150mW sensitive coil
- Dielectric strength between coil&contact: 1000VAC
- Class F Coil

Performance

Contact resistance MAX.100m Ω (DC6V 1A)

Operation voltage 75%MAX.(Room temp)

Release voltage 5%MIN. (Room temp)

Operating time MAX.6ms

Release time MAX.3ms

Dielectric strength

Open Contacts: 500VAC(1 min)

Adjacent Contacts: 1,000VAC(1mm)

Between coil & contact: 1,000VAC(1 min)

Insulation Resistance 1,000M Ω (500VDC)

Temperature rise Coil MAX.35K

Contact : MAX.40K

Vibration Error operation 10~55HZ(Amplitude 1.5mm)

Endurance 10~55HZ(Amplitude 1.5mm)

Shock Error operation 98m/s²

Endurance 980m/s²

Electrical Life 1A/125VAC, 70℃, 100,000o

Mechanical Life 10,000,000ops

Operating temperature -30~70℃(No condensation)

Operating humidity 35~85%

SSA approval rating

cULus 1A/125VAC 75℃, 100,000ops

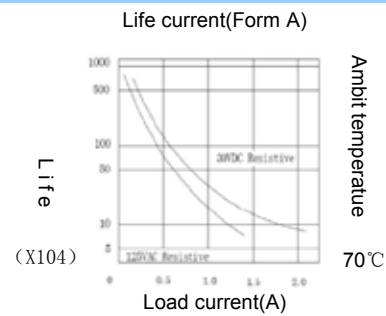
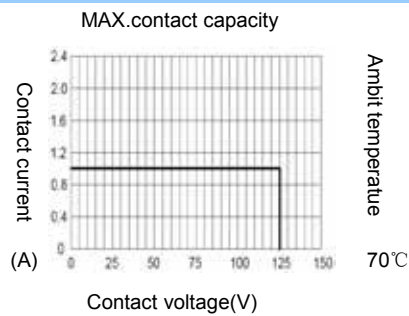
2A/30VDC 75℃, 100,000ops

Nomenclature

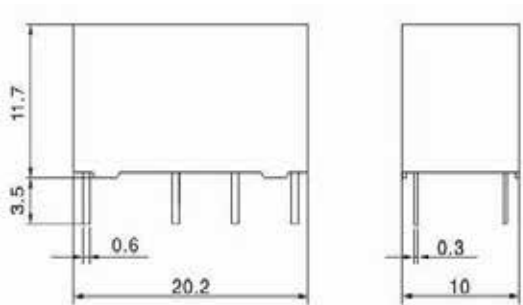
Model designation	RSB	-2	12	D	*	*	-S	-XXX
Number of poles	2: 2 poles							
Coil voltage	03:3V; 05:5V; 06:6V; 09:9V; 12:12V; 24:24V;48:48V							
Coil power	D:360mW M:200mW							
Contact configuration	Blank: Form C							
Insulation Class	Blank:Class A							
Sealed Type	S: Washable							

Special request

Reference data



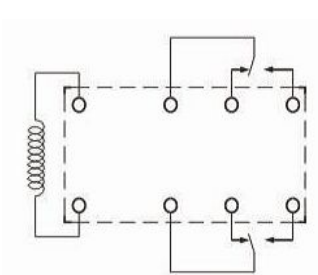
Outline dimension



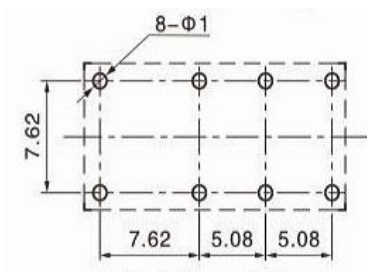
Tolerance

<1mm	±0.2mm
1~5mm	±0.3mm
>5mm	±0.4mm

Terminal assignment



PCB board layout



Tolerance

Pitch-row	±0.1mm
Aperture	+0.1mm

RSC Signal Relay



- 2A power small relay
- 200mW sensitive coil
- Dielectric strength between coil&contact: 1000VAC
- Class F Coil

Compliance Certification Number

CQC:

cULus: E341569

TUV:

Contact

Contact configuration 1 form C

Contact material : Ag Alloy

Contact specification

MAX. contact load 1A/125VAC

Rated contact current 2A

MAX.contact capacity 125VA

MIN.applicable load DC100mW, 1mA

Coil rating

D type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
3	120.4	25	360	≤ 2.25	≥ 0.30
5	71.4	70	360	≤ 3.75	≥ 0.50
6	60.0	100	360	≤ 4.50	≥ 0.60
9	40.9	220	360	≤ 6.75	≥ 0.90
12	30.0	400	360	≤ 9.00	≥ 1.20
24	15.0	1600	360	≤ 18.00	≥ 2.40

L type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
3	66.7	45	200	≤ 2.25	≥ 0.3
5	40.0	125	200	≤ 3.75	≥ 0.5
6	33.3	180	200	≤ 4.50	≥ 0.60
9	22.2	405	200	≤ 6.75	≥ 0.90
12	16.7	720	200	≤ 9.00	≥ 1.20
24	8.3	2880	200	≤ 18.00	≥ 2.40

MAX.allowable coil voltage:130% of rated coil voltage(Room temperature)

Performance

Contact resistance MAX.100m Ω (DC6V 1A)

Operation voltage 75%MAX.(Room temp)

Release voltage 10%MIN. (Room temp)

Operating time MAX.6ms

Release time MAX.3ms

Dielectric strength

Between contacts : 500VAC(1 min)

Between coil & contact: 500VAC(1 min)

Insulation Resistance 1,000M Ω (500VDC)

Temperature rise Coil MAX.35K

Contact : MAX.40K

Vibration Error operation 10~55HZ(Amplitude 1.5mm)

Endurance 10~55HZ(Amplitude 1.5mm)

Shock Error operation 98m/s²

Endurance 980m/s²

Electrical Life 1A/125VAC, 40℃, 100,000o

Mechanical Life 10,000,000ops

Operating temperature -30~70℃(No condensation)

Operating humidity 35~85%

SSA approval rating

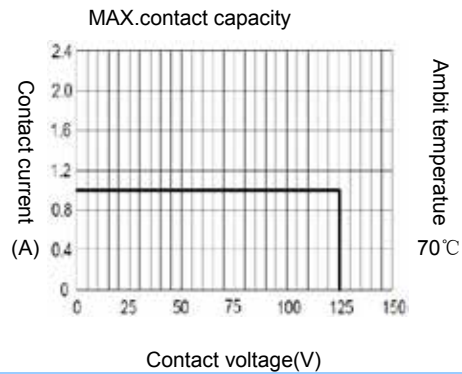
cULus 1A/125VAC 100,000ops

2A/24VDC 100,000ops

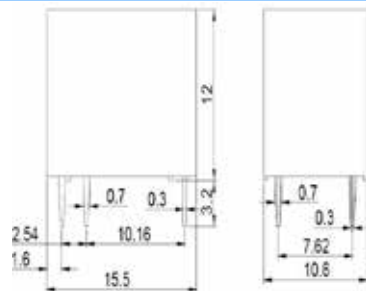
Nomenclature

	RSC	-1	12	D	*	F	-A	-XXX
Model designation	RSC							
Number of poles								
1: 1 pole								
Coil voltage								
03:3V,05:5V,06:6V, 09:9V,12:12V,24:24V								
Coil power								
D: 360mW L: 200mW								
Contact configuration								
Blank: Form C								
Insulation Class								
Blank:Class A F: Class F								
Terminal pin position								
Blank: Standard A:C Terminal and Coil Terminal are on the same side								
Special request								

Reference data



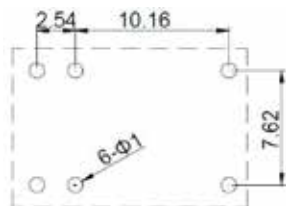
Outline dimension



Tolerance

<1mm	±0.2mm
1~5mm	±0.3mm
>5mm	±0.4mm

PCB board layout

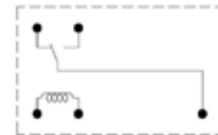


Tolerance

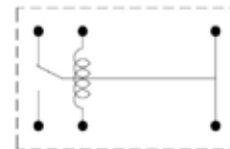
Pitch-row	±0.1mm
Aperture	+0.1mm

Terminal assignment

A Type



Standard



RH Electromagnetic Relay



- 30A Electromagnetic relay
- Small and high-power
- AC/DC Input voltage

Compliance Certification Number

CQC:

cULus: E341569

TUV:

Contact

Contact configuration 1 Form A ,2 Form A

Contact material Ag Alloy

Contact specification

MAX. contact load 30A/220VAC (1 Form A)

25A/220VAC (2 Form A)

Rated contact current 30A (1 Form A)

25A (2 Form A)

MAX.contact capacity 6600VA (1 Form A)

5500VA (2 Form A)

Coil rating

D type

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
6	317.5	18.9	1900	≤ 4.50	≥ 0.90
12	160	75	1900	≤ 9.00	≥ 1.80
24	79.2	303	1900	≤ 18.00	≥ 3.60
48	39.3	1220	1900	≤ 36.00	≥ 7.20
100	19.0	5260	1900	≤ 75.00	≥ 15.00

A type (50HZ)

Rated voltage	Rated current	Coil resistance	Operating power	Operation Voltage	Release Voltage
(V)	(mA)	($\Omega \pm 10\%$)	(mW)	(VDC)	(VDC)
12	NA	58	1.7~2.5	≤ 9.00	≥ 1.80
24	NA	230	1.7~2.5	≤ 18.00	≥ 3.60
50	NA	1000	1.7~2.5	≤ 37.00	≥ 7.50
110	NA	4900	1.7~2.5	≤ 82.50	≥ 16.50
220	NA	19600	1.7~2.5	≤ 165.00	≥ 33.00

MAX.allowable coil voltage:130% of rated coil voltage
(Room temperature)

Performance

Contact resistance MAX.50m Ω (DC6V 1A)

Operation voltage 75%MAX.(Room temp)

Release voltage 15%MIN. (Room temp)

Operating time MAX.30ms

Release time MAX.30ms

Dielectric strength

Open Contacts: 2,000VAC(1 min)

Adjacent Contacts: 2,000VAC(1mm)

Between coil & contact: 4,000VAC(1 min)

Insulation Resistance 1,000M Ω (500VDC)

Vibration Error operation 10~55HZ(Amplitude 1.5mm)

Endurance 10~55HZ(Amplitude 1.5mm)

Shock Error operation 98m/s²

Endurance 980m/s²

Electrical Life 50,000ops

Mechanical Life 1,000,000ops

Operating temperature -25~60℃(No condensation)

Operating humidity 20~85%

SSA approval rating

cULus 1 Form A 25A/220VAC 100,000ops
(cos ϕ =0.4)

30A/220VAC 100,000ops

2 Form A 20A/220VAC 100,000ops

(cos ϕ =0.4)

25A/220VAC 100,000ops

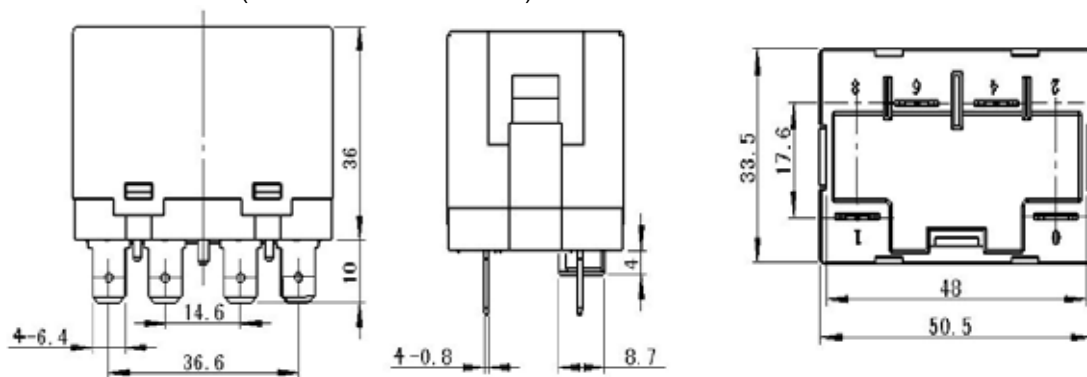
Nomenclature

	RH	-2	12	D	M	P	1	-XXX
Model designation	RH							
Number of poles								
		1: 1 pole 2:2 poles						
Coil voltage								
Coil power								
		D: DC A: AC						
Contact configuration								
		M: Form A						
Terminal Shape								
		Blank:Fast terminal P: PCB						
Installation Mode								
		1: Standard 2:Flange						

Special request

Outline dimension

1 Form A (Standard & Fast terminal)

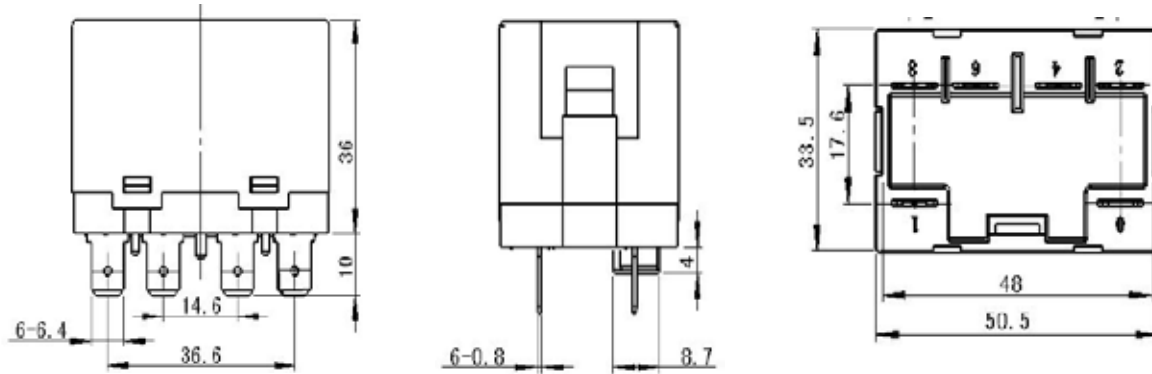


Tolerance

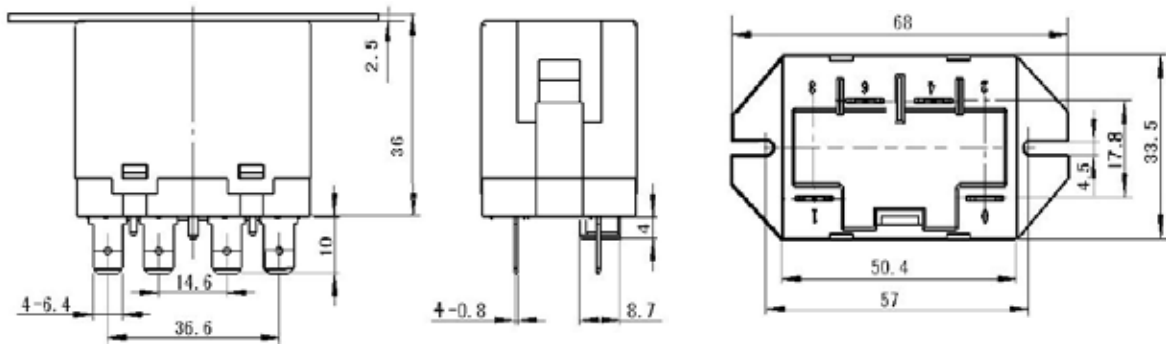
<1mm	±0.2mm
1~5mm	±0.3mm
>5mm	±0.4mm

Outline dimension

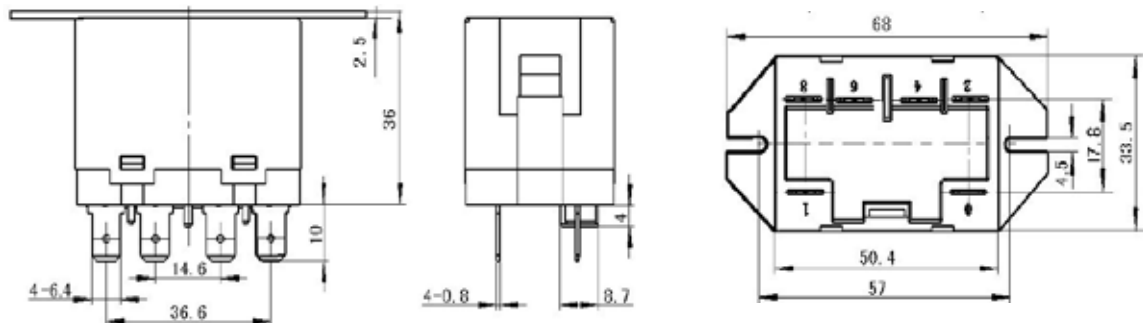
2 Form A (Standard & Fast terminal)



1 Form A (Flange & Fast terminal)

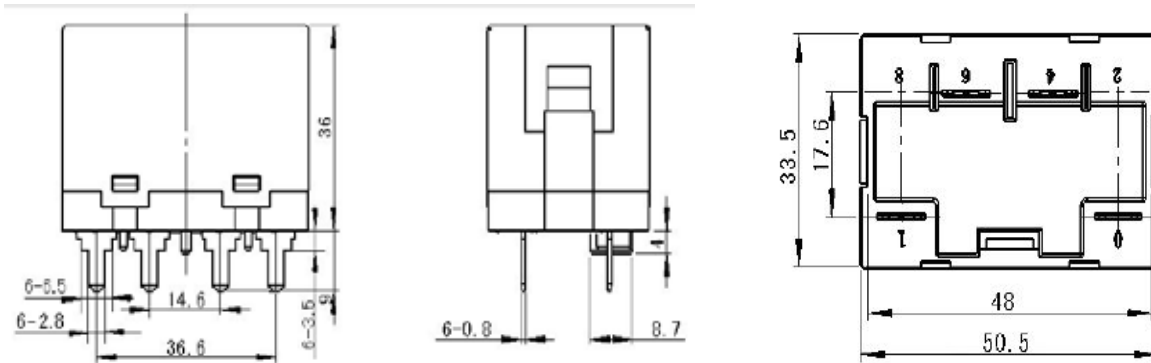


2 Form A (Flange & Fast terminal)

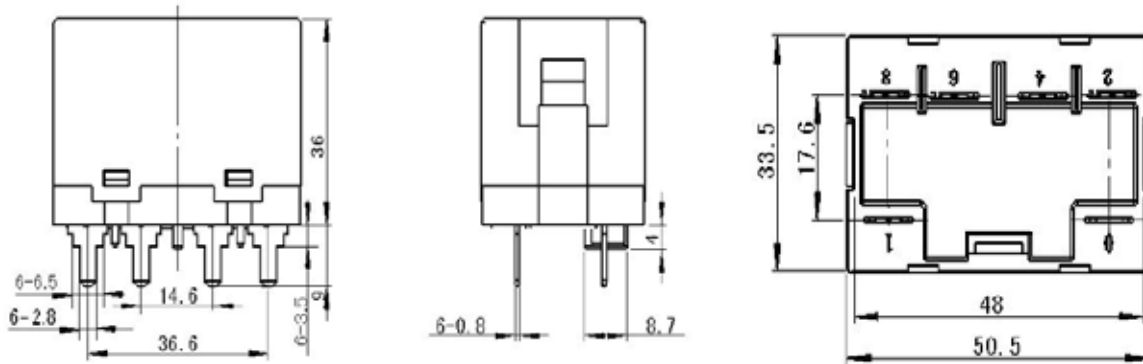


Outline dimension

1 Form A (Standard & PCB)



2 Form A (Standard & PCB)

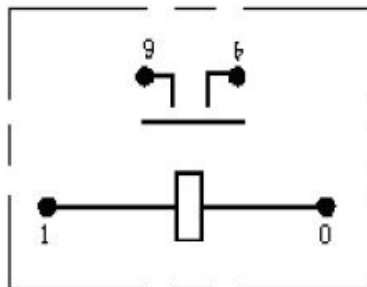


Tolerance

<1mm	±0.2mm
1~5mm	±0.3mm
>5mm	±0.4mm

Terminal assignment

1 Form A



2 Form A

