

PART NUMBERS

Package & Chip Type	Max Blocking Voltage (piv)/ Line Rating	Input Type	Output Current Amps	Options
SSRD-SCR	1200480	D-DC Input	25	See Table
	600240	Zero Cross	40	Below and
		Switching		Page 40
		R-DC Input		
		Random		
		Turn-On		

Options (Add Suffix to Part Number) - See Page 40 for full description

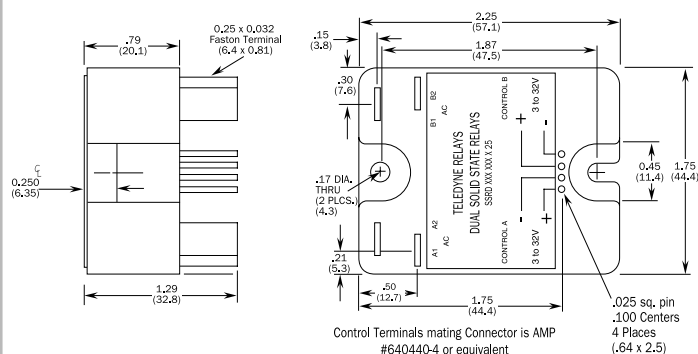
-012 EZ Mount™

-016 MOV

-021 TransAx™

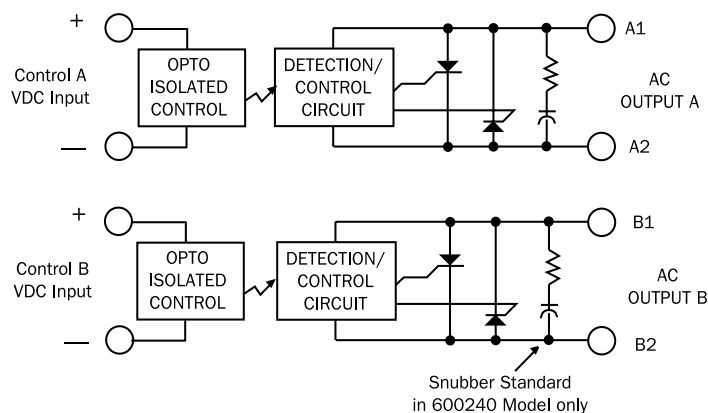
Part Number Example: SSRD1200480R40

MECHANICAL SPECIFICATION



See page 60 for mounting information.

BLOCK DIAGRAM



FEATURES/BENEFITS

- Two independently controlled solid state relays in a single package.
- Quick connect type power terminals in a high temperature plastic housing for mechanical ruggedness.
- SCR outputs for high dv/dt, current and voltage capability.
- Constant Current Input minimizes source current requirement (standard on **D** input only)
- Exposed ceramic baseplate for reduced thermal resistance and best thermal performance.
- Constructed using Teledyne's unique Powertherm™ process. This process yields superior thermal impedance and power cycling capabilities through reduced thermal interconnections, allowing for cooler, more reliable operation.
- Certifications:
 - UL and ULC Recognized File #E128555
 - CE # EN60947-1

TYPICAL APPLICATIONS

- On/Off controls of high power AC equipment.
- Interfacing of microprocessor controls to AC loads - lights, motors, heaters, valves, solenoids etc.
- Electromechanical line relay replacement.
- Mercury displacement relay replacement.
- Industrial and Process Controls.
- Uninterruptable Power Supplies.
- Robotics motor position and speed controls.
- Light dimmers.
- Transformer tap switch.

GENERAL DESCRIPTION

The SSRD series AC Solid State Relays are designed to provide independent control of high amounts of power in two separate circuits. Optical isolation ensures complete protection of each relay circuit's control elements from load transients in each load circuit. Teledyne's advanced design featuring the Powertherm™ process offers users superior thermal management resulting in excellent performance, quality and reliability.

ELECTRICAL SPECIFICATIONS
INPUT (CONTROL) SPECIFICATIONS

Parameter	Input Type	Min	Max	Units
Control Voltage Range	D	3	32	Vdc
	R	4	26	
Input Current	(@5Vdc)	15		mA
Must Turn-Off Voltage		1		Vdc
Reverse Voltage Protection			-32	Vdc
Turn-Off Current		0.25		mA(DC)

OUTPUT (LOAD) SPECIFICATION

Parameter	Voltage Code	Min	Max	Units
Load Voltage Rating	600240	24	280	Vac
	1200480	48	530	
Frequency Range (Note 2)		47	400	Hz
Over Voltage Range	600240		600	VPeak
	1200480		1200	
On-State Voltage Drop @ Max Rate Current		1.4		V
Turn-On Time	D		8.3	ms
	R		0.02	
Turn-Off Time			8.3	ms
Leakage Current (Off-State) @ Rated Voltage, 60 hz	1200 (No Snubber)		0.5	mA
	600 (With Snubber)		5.0	
dV/dt (Typical)			500	V/μs
Dielectric Strength (60 hz)	600240	4000		V
	1200480	2500		
Insulation Resistance (500Vdc)		10 ⁹		Ohms
Operating Ambient Temperature		-40	100	°C
Storage Ambient Temperature		-55	125	°C
Power Factor Range		0.5	1.0	
Weight (Typical)		3.0 oz	(85g)	

OUTPUT (LOAD) SPECIFICATIONS (Contd)

Parameter	Output Current	Min	Max	Units
Output Current Rating Per Output (Base Temp @85°C)	25	0.05	25	A
	40	0.05	40	
Surge Current Rating (Non-Repetitive 16.7 mS)	25		300	A
	40		500	
Thermal Resistance Junction to Case (J _c)	25	Single Switch On	0.4	°C/W
	25	Dual Switch On	0.2	
	40	Single Switch On	0.4	
	40	Dual Switch On	0.2	

NOTES:

- Where overvoltage transient spikes are present, suppression may be required. A suppressor and/or a snubber circuit across the AC terminals of the module will provide additional transient immunity.
- For 400 Hz inductive load, contact factory.
- All parameters at 25°C unless otherwise specified