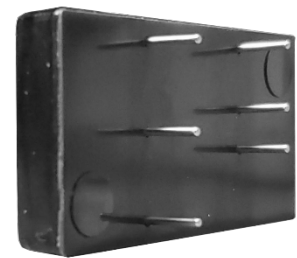


ASD05

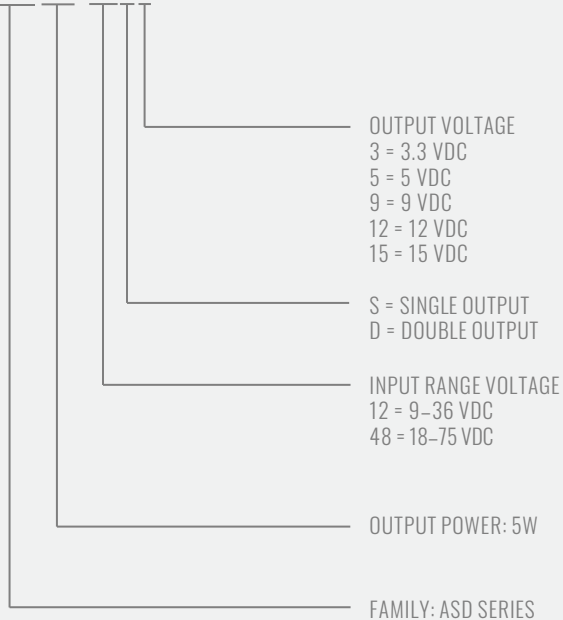
ISOLATED AND REGULATED 5 WATT MODULAR DC/DC CONVERTERS

The ASD05 series of 5W modular DC/DC converters with a wide 4:1 input range for versatile power requirements. With high efficiency, regulated outputs, 1500VDC isolation, and EMI shielding, these converters offer reliable power delivery and enhanced safety. Equipped with standard pinouts, they are ideal for industrial, telecommunications, and automotive applications. Upgrade to the ASD05 series for efficient power solutions.



HOW TO ORDER

ASD05-12S3



FEATURES

DC INPUT Wide 4:1

Nominal: 12VDC	48VDC
Range: 9-36VDC	18-75VDC

OUTPUT RANGE

5 Watts Output

OPERATING TEMPERATURE

-25 to +71°C(FL)

SAFETY APPROVALS

Mil Std 217, 25°C

SHOCK/VIBRATION

MIL-STD 810°C

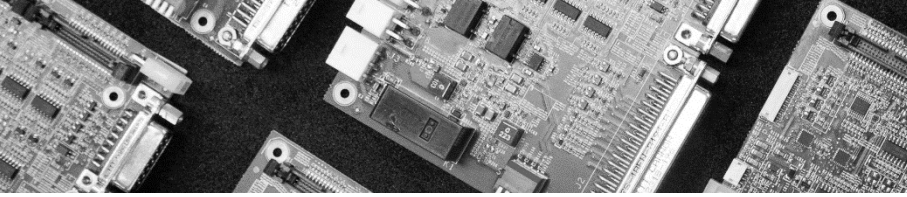
HIGH EFFICIENCY

ISOLATION

1500VDC

FULL EMI SHIELDING

STANDARD PINOUTS



ASD05

ISOLATED AND REGULATED 5 WATT MODULAR DC/DC CONVERTERS

PARAMETERS

ASD05

INPUT SPECIFICATIONS

Input Voltage, Nominal	12VDC 48VDC
Input Voltage Ranges	9-36 18-75 VDC
Input Surge Voltage	50V (12V Models), * 100V (48V Models), * 10 mS duration, min.

OUTPUT SPECIFICATIONS

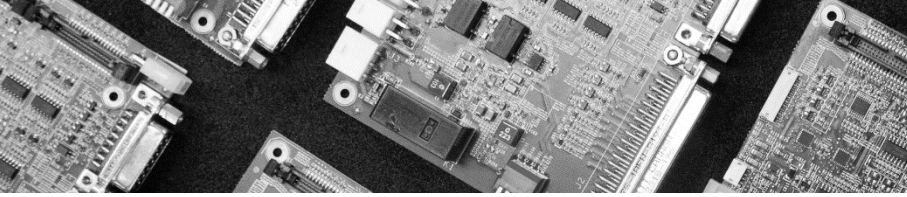
Voltage and Current	See Selection Chart
Preset Accuracy	Singles: +/- 3% max. Duals: +/- 4% max.
Cross Regulation (Duals)	5-8% typ.
Load Regulation	singles: +/- 0.5%
20% - FL	duals: +/-1%, +/-3% (5V mod)
Line Regulation	singles: +/- 0.5% duals: +/- 1%
Minimum Load	5% of Full Load
Temperature Coefficient	+/-0.03%/°C
Ripple/Noise (Pk-Pk, typ)	(Note 1)
	Single 3.3V 150mV
	Single 5V 100mV (12Vin), 150mV (48Vin)
	Single 9,12V 50mV (12Vin), 100mV (48Vin)
	Single 15V 50mV
	Dual 5V 150mV
	Dual 12, 15V 50mV
Overvoltage Protection	Clamp, 130-150%*
Short Circuit Protection	Clamp, need to release load*

All specifications are typical at nominal input, full load, and 25°C unless otherwise noted

* These are stress ratings. Exposure of the devices to any of these conditions may adversely affect long-term reliability. Proper operation under conditions other than the standard operating conditions is neither warranted nor implied.

GENERAL SPECIFICATIONS

On/Off Control	(Ref to - Input pin) Logic "1"/Open=ON Logic "0"/GND=OFF
Shutdown Idle Current	15mA
Input-Out Isolation	1500VDC (48V) 500 VDC (12V)
In/Out Capacitance	1000 pF
Efficiency at nom. Input	12V: 72%-83%, typ. 48V: 69%-80%, typ.
Switching Frequency	450Khz



ASD05H

ISOLATED AND REGULATED 5 WATT OPEN FRAME DC/DC CONVERTER

PARAMETERS

ASD05

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	-25 to +71°C(FL)
Storage Temperature	-40 to +125°C *
Maximum Case Temp	110°C *
Input Fusing	12V: 4A, 48V: 2A
MTBF	1,000,000 Hrs Mil Std 217, 25°C
Shock/Vibration	To MIL-STD 810°C

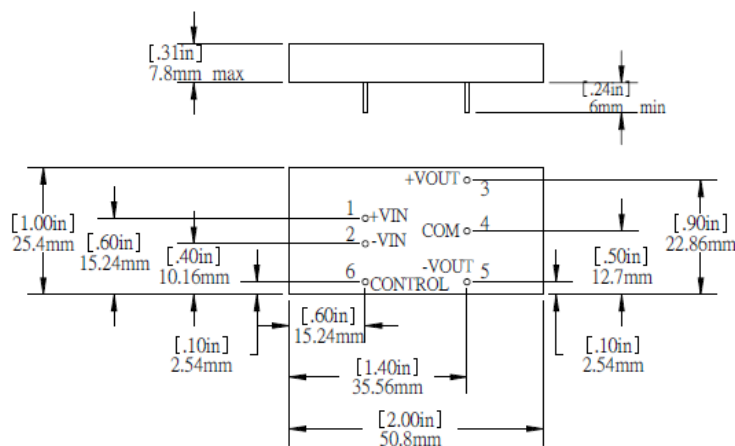
PHYSICAL SPECIFICATIONS

Case Material	Aluminum
Construction	Fully Encapsulated
Weight	0.64 oz, (18g)

NOTES

1. Ripple & Noise are measured by using a 20MHz bandwidth oscilloscope and terminating the output with a 47uF electrolytic capacitor paralleled with a 0.1uF ceramic capacitor

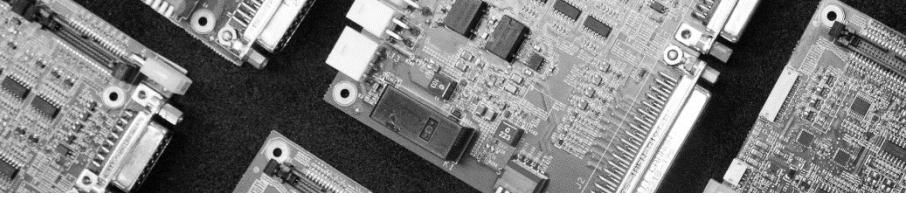
MECHANICAL DIMENSION



TOLERANCES : .XX ± 0.5mm(0.02in)
: .XXX ± 0.25mm(0.01in)

Pin# Single Outputs Dual Outputs

1	+Input	+Input
2	- Input	- Input
3	+Output	+Output
4	N/A	Common
5	- Output	- Output
6	Control	Control



ASD05

ISOLATED AND REGULATED 5 WATT MODULAR DC/DC CONVERTERS

MODEL NUMBER	OUTPUT VOLTAGE	OUTPUT AMPS	INPUT RANGE
Single Output			
ASD05-12S3	3.3 VDC	1.5	9-36 VDC
ASD05-48S3	3.3 VDC	1.5	18-75 VDC
ASD05-12S5	5 VDC	1	9-36 VDC
ASD05-48S5	5 VDC	1	18-75 VDC
ASD05-12S9	9 VDC	0.55	9-36 VDC
ASD05-48S9	9 VDC	0.55	18-75 VDC
ASD05-12S12	12 VDC	0.42	9-36 VDC
ASD05-48S12	12 VDC	0.42	18-75 VDC
ASD05-12S15	15 VDC	0.33	9-36 VDC
ASD05-42S15	15 VDC	0.33	18-75 VDC
Dual Output			
ASD05-12D5	+/-5 VDC	+/-0.5	9-36 VDC
ASD05-48D5	+/-5 VDC	+/-0.5	18-75 VDC
ASD05-12D12	+/-12 VDC	+/-0.21	9-36 VDC
ASD05-48D12	+/-12 VDC	+/-0.21	18-75 VDC
ASD05-12D15	+/-15 VDC	+/-0.17	9-36 VDC
ASD05-48D15	+/-15 VDC	+/-0.17	18-75 VDC

OUTPUT DERATING CURVE

