Astrodyne TDI
Now you have power.

Isolated and Regulated 7.5 WATT Modular DC/DC Converters

ASD07 series



Unit measures 1"W x 2"L x 0.31"H

- Wide 4:1 Input Range
- 9 to 36V or 18 to 75V Available
- High Efficiency
- Regulated Outputs
- 1500VDC Isolation
- Full EMI Shielding
- Standard Pinouts

Model Number	Output Voltage	Output Amps	Input Range
SINGLE OUTPUT			
ASD07-12S3	3.3 VDC	1.9	9-36VDC
ASD07-48S3		1.9	18-75VDC
ASD07-12S5	5 VDC	1.5	9-36VDC
ASD07-48S5		1.5	18-75VDC
ASD07-12S9	9 VDC	0.83	9-36VDC
ASD07-48S9		0.83	18-75VDC
ASD07-12S12	12 VDC	0.62	9-36VDC
ASD07-48S12		0.62	18-75VDC
ASD07-12S15	15 VDC	0.5	9-36VDC
ASD07-48S15		0.5	18-75VDC
DUAL OUTPUT			
ASD07-12D5	+/-5 VDC	+/-0.75	9-36VDC
ASD07-48D5		+/-0.75	18-75VDC
ASD07-12D12	+/-12 VDC	+/-0.31	9-36VDC
ASD07-48D12		+/-0.31	18-75VDC
ASD07-12D15	+/-15 VDC	+/-0.25	9-36VDC
ASD07-48D15		+/-0.25	18-75VDC

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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 warranteed 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: 75%-84%, typ.
	48V: 74%-81%, typ.
Switching Frequency	450Khz

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

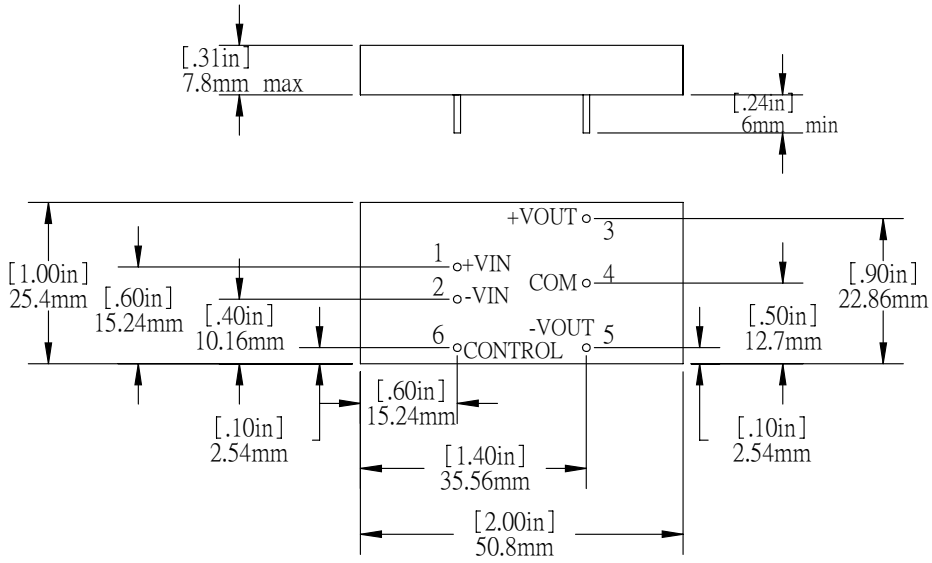
PHYSICAL SPECIFICATIONS

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

NOTES

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

MECHANICAL DIMENSIONS



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

OUTPUT DERATING CURVE

