

## Isolated and Regulated 5 WATT Open Frame DC/DC Converter

ASD05H series



Unit measures 1"W x 2"L x 0.41"H

- Wide 4:1 Input Range
- 9 to 36V or 18 to 75V Available
- High Efficiency
- Regulated Outputs
- 1500VDC Isolation
- Integral Finned Heatsink
- EN60950-1 & UL60950-1 Approved





Model Number	Output Voltage	Output Amps	Input Range
SINGLE OUTPUT			
ASD05H-12S3	3.3 VDC	1.5	9-36VDC
ASD05H-48S3		1.5	18-75VDC
ASD05H-12S5	5 VDC	1	9-36VDC
ASD05H-48S5		1	18-75VDC
ASD05H-12S9	9 VDC	0.55	9-36VDC
ASD05H-48S9		0.55	18-75VDC
ASD05H-12S12	12 VDC	0.42	9-36VDC
ASD05H-48S12		0.42	18-75VDC
ASD05H-12S15	15 VDC	0.33	9-36VDC
ASD05H-48S15		0.33	18-75VDC
DUAL OUTPUT			
ASD05H-12D5	±5 VDC	±0.5	9-36VDC
ASD05H-48D5		±0.5	18-75VDC
ASD05H-12D12	±12 VDC	±0.21	9-36VDC
ASD05H-48D12		±0.21	18-75VDC
ASD05H-12D15	±15 VDC	±0.17	9-36VDC
ASD05H-48D15		±0.17	18-75VDC

ASTRODYNE USA: 1-800-823-8082 ASTRODYNE PACIFIC: 886-2-26983458



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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	Single: ± 3% max.	
	Duals: ± 4% max.	
Cross Regulation (Duals)	5-8% typ.	
Load Regulation	single: ± 0.5%	
20% - FL	duals: ±1%, ±3% (5V mod)	
Line Regulation	single: ± 0.5%	
	duals: ± 1%	
Minimum Load	5% of Full Load	
Ripple/Noise (Pk-Pk, typ)		
Single 3.3V	150mV	
Single 5V	100mV (12Vin), 150mV (48Vin)	
Single 9,12	50mV (12Vin), 100mV (48Vin)	
Single15V	50mV	
Dual 5V	150mV	
Dual 12, 15V	50mV	
Overvoltage Protection	Clamp, 130-150% *	
Short Circuit Protection	Clamp, need to release load	

#### **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	82%, typ	

#### **ENVIRONMENTAL SPECIFICATIONS**

Oper. Temperature	-25 to +71°C(FL)
Relative Humidity	0 to 95%, non-cond
Storage Temperature	-40 to +125°C *
Maximum Heatsink Temp	110°C *
MTBF	1,000,000 Hrs
	Mil Std 217, 25°C
Shock/Vibration	To MIL-STD 810°C
Safety UL/cUL:	UL60950-1 2nd ed./
	CAN/CSA C22.2 60950-1 2nd ed.
UL-EU:	EN60950-1 2nd ed.

#### PHYSICAL SPECIFICATIONS

Heatsink Material	Aluminum
Construction	Open Frame
Weight	0.57 oz, (16g)

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

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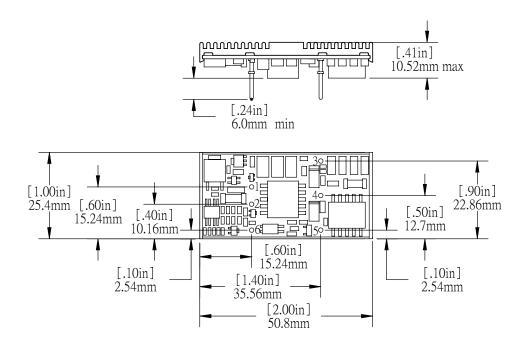
<sup>\*</sup> These are stress ratings. Exposure of the devices to any of these conditions may adversely affect long term reliability. Proper operation under conditions other than the standard operating conditions is neither warranteed nor implied.



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#### **MECHANICAL DIMENSIONS**



Pin#	Single Outputs	Dual Outputs
1	+ Input	+ Input
2	- Input	- Input
3	+ Output	+ Output
4	N/A	Common
5	- Output	- Output
6	Control	Control

TOLERANCES: .XX ± 0.5mm(0.02in)

:  $.XXX \pm 0.25mm(0.01in)$ 

#### **OUTPUT DERATING CURVE**

