aimtec
Your Power Partner

Series AM6TW-RVZ

6 Watt | DC-DC Converter

FEATURES:

- Wide Input Range (4:1)
- 24 Pin DIP Package
- Metal package
- High efficiency up to 82%
- Operating temperature -40ºC to + 85ºC
- Input / Output isolation 1500 VDC
- Pin compatible with multiple manufacturers
- Continuous short circuit protection

RoHS

Models
Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Capacitive load, max (µF)	Efficiency (%)
AM6TW-2412S-RVZ	9-36	12	500	470	82
AM6TW-2415S-RVZ	9-36	15	400	330	80
AM6TW-4812S-RVZ	18-72	12	500	470	78
AM6TW-4815S-RVZ	18-72	15	400	330	78

Models
Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Capacitive load, max (µF)	Efficiency (%)
AM6TW-2412D-RVZ	9-36	±12	±250	±100	81
AM6TW-2415D-RVZ	9-36	±15	±200	±68	80
AM6TW-4812D-RVZ	18-72	±12	±250	±100	78
AM6TW-4815D-RVZ	18-72	±15	±200	±68	75

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage Range	24	9-36		VDC
	48	18-72		
Filter	π (Pi) Network			
Absolute Max Rating	24 Vin	-0.7-40		VDC
	48 Vin	-0.7-80		

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	3 sec		1500	VDC
Resistance		> 1000		MOhm
Capacitance		60		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage Balance	Balanced Load	±1		%
Voltage accuracy		±1		%
Short circuit protection	Continuous			
Short circuit restart	Auto Recovery			
Line voltage regulation		±0.5		%
Load voltage regulation		±0.5		%
Temperature coefficient		±0.02		%/ºC
Ripple & Noise *	At 20MHz Bandwidth	60		mV p-p

* In order to achieve ripple and noise specification, a 100µF capacitor is required to be connected to the output of the converter

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	100-400		KHz
Operating temperature	Full Load (see derating chart)	-40 to +85		ºC
Storage temperature		-40 to +125		ºC
Max Case temperature			100	ºC
Cooling	Free air convection			
Humidity			95	%
Case material	Nickel coated copper			
Weight		12.16		g
Dimensions(L x W x H)	Tolerance ±0.5 mm or ±0.02 inches	1.25 x 0.8 x 0.4 inches	31.75 x 20.32 x 10.16 mm	
MTBF	>2,200,000 hrs (MIL-HDBK -217F, Ground Benign, t=+25ºC)			

Safety Specifications

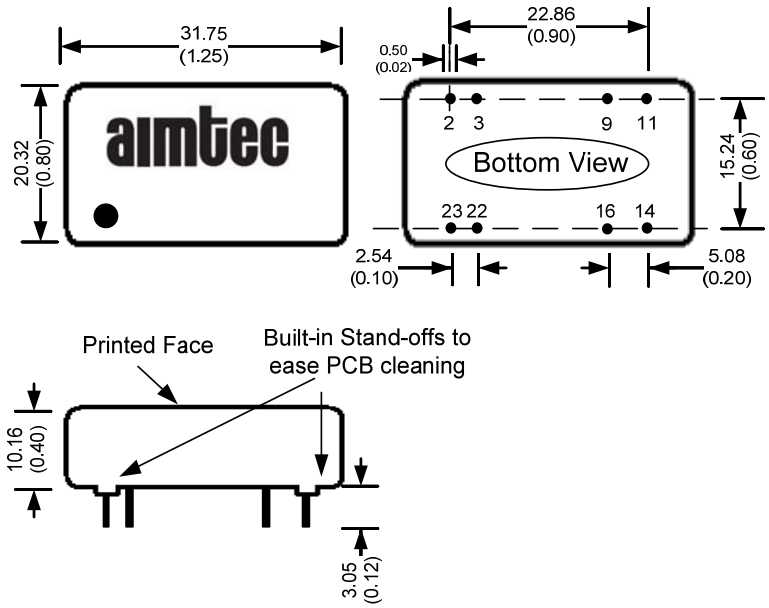
Parameters	
Standards	Designed to meet IEC 60950-1

NOTE: All specifications in this datasheet are measured at an ambient temperature of 25°C, humidity<75%, nominal input voltage and at rated output load unless otherwise specified.

Pin Out Specifications

Pin	1500 VDC	
	Single	Dual
2	-V Input	-V Input
3	-V Input	-V Input
9	No pin	Common
11	N.C.	-V Output
14	+V Output	+V Output
16	-V Output	Common
22	+V Input	+V Input
23	+V Input	+V Input

Dimensions



All dimensions are typical: millimeters (inches)
Pin Diameter: 0.50 ± 0.05 (0.02 ± 0.002)
Pin Pitch Tolerance: ± 0.35 (±0.014)
Case Tolerence: ± 0.5 (±0.02)

Derating