Series AM4TW-RZ

4 Watt | DC-DC Converter

FEATURES:

- RoHS compliant
- 24 Pin DIP Package
- High efficiency up to 83%
- Wide 4:1 input range
- Operating temperature -40 to + 85°C
- Input / Output Isolation 1500VDC
- Pin compatible with multiple manufacturers
- Continuous short circuit protection

RoHS

Models
Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Efficiency (%)
AM4TW-2403S-RZ	9-36	3.3	1200	1500	77
AM4TW-2405S-RZ	9-36	5	800	1500	80
AM4TW-2407S-RZ	9-36	7.2	550	1500	80
AM4TW-2409S-RZ	9-36	9	440	1500	80
AM4TW-2412S-RZ	9-36	12	330	1500	83
AM4TW-2415S-RZ	9-36	15	265	1500	83
AM4TW-2418S-RZ	9-36	18	220	1500	80
AM4TW-2424S-RZ	9-36	24	165	1500	81
AM4TW-4803S-RZ	18-72	3.3	1200	1500	77
AM4TW-4805S-RZ	18-72	5	800	1500	80
AM4TW-4807S-RZ	18-72	7.2	550	1500	78
AM4TW-4809S-RZ	18-72	9	440	1500	82
AM4TW-4812S-RZ	18-72	12	330	1500	81
AM4TW-4815S-RZ	18-72	15	265	1500	81
AM4TW-4818S-RZ	18-72	18	220	1500	81
AM4TW-4824S-RZ	18-72	24	165	1500	82

Models
Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Isolation (VDC)	Efficiency (%)
AM4TW-2403D-RZ	9-36	±3.3	±600	1500	76
AM4TW-2405D-RZ	9-36	±5	±400	1500	78
AM4TW-2407D-RZ	9-36	±7.2	±275	1500	80
AM4TW-2409D-RZ	9-36	±9	±220	1500	80
AM4TW-2412D-RZ	9-36	±12	±165	1500	82
AM4TW-2415D-RZ	9-36	±15	±125	1500	80
AM4TW-2418D-RZ	9-36	±18	±100	1500	80
AM4TW-2424D-RZ	9-36	±24	±84	1500	80
AM4TW-4803D-RZ	18-72	±3.3	±600	1500	75
AM4TW-4805D-RZ	18-72	±5	±400	1500	79
AM4TW-4807D-RZ	18-72	±7.2	±275	1500	80
AM4TW-4809D-RZ	18-72	±9	±220	1500	81
AM4TW-4812D-RZ	18-72	±12	±165	1500	82
AM4TW-4815D-RZ	18-72	±15	±125	1500	81
AM4TW-4818D-RZ	18-72	±18	±100	1500	80
AM4TW-4824D-RZ	18-72	±24	±84	1500	80

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	24 48	9-36 18-72		VDC
Filter		π (Pi) Network		
Turn on Transient process time			350	ms
Start up time		500		ms

Input Specifications (continued)

Parameters	Nominal	Typical	Maximum	Units
Absolute Maximum Rating	24 Vin 48 Vin	-0.7-40 -0.7-80		VDC
Peak Input Voltage time		100		ms

Isolation Specifications

Parameters	Conditions	Typical	Maximum	Units
Tested voltage	3 sec	1500		VDC
Resistance		> 1000		MOhm
Capacitance		500		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±1		%
Voltage balance		±1		%
Short Circuit protection	Continuous			
Short circuit restart	Automatic			
Over current protection	120% Iout			
Line voltage regulation (Single)		±0.5		%
Line voltage regulation (Dual)		±0.5		%
Load voltage regulation (Single)		±0.5		%
Load voltage regulation (Single) 3.3V output model		±1.5		%
Load voltage regulation (Dual)		±0.5		%
Load voltage regulation (Dual) ±3.3V output model		±1.5		%
Temperature coefficient		±0.02		%/°C
Ripple & Noise	0…20MHz	60		mV p-p
Rising time		10		ms

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	260		KHz
Operating temperature	Full Load without Derating	-40 to +85		°C
Storage temperature		-40 to +125		°C
Case temperature			+100	°C
Cooling	Free air convection			
Humidity	Non condensing		90	%
Case material	Nickel coated copper			
Weight		26		g
Dimensions	Tolerance ±0.5 mm or ±0.02 inches	1.25 x 0.80 x 0.40 inches		31.75 x 20.32 x 10.16 mm
MTBF	>1 050 000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)			

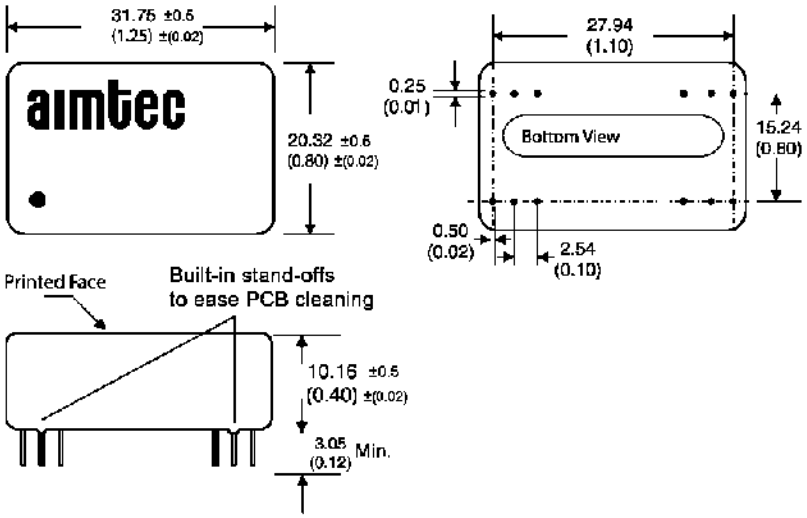
Safety Specifications

Standards	
Agency approvals	CE
Safety	EN55022 (Conducted and Radiated Emissions), class A; IEC60950-1:2001

Pin Out Specifications

Pin	Single	Dual
2	-V Input	-V Input
3	-V Input	-V Input
9	Omitted	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



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