aimtec
Your Power Partner

Series AM10T-IZ

10 Watt | DC-DC Converter

FEATURES:

- Short Circuit & OVP Protection
- 24 Pin DIP Package
- Wide 2:1 input range
- Power modules for PCB mounting
- No minimum load
- Operating temperature -40°C to + 75°C
- Regulated output
- Low ripple and noise
- Input/output Isolation voltage 1500VDC

RoHS

Models
Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Capacitive Load, max(uf)	Ripple & Noise max, (% mV p-p)	Efficiency (%)
AM10T-1203SIZ	9-18	3.3	2000	4000	80	79
AM10T-1205SIZ	9-18	5	2000	3200	80	75
AM10T-1212SIZ	9-18	12	830	600	120	81
AM10T-1215SIZ	9-18	15	660	330	150	81
AM10T-2403SIZ	18-36	3.3	2000	4200	80	71
AM10T-2405SIZ	18-36	5	2000	3200	80	78
AM10T-2412SIZ	18-36	12	830	600	120	82
AM10T-2415SIZ	18-36	15	660	330	150	83
AM10T-4803SIZ	36-75	3.3	2000	3000	80	73
AM10T-4805SIZ	36-75	5	2000	2700	80	82
AM10T-4812SIZ	36-75	12	830	600	120	82
AM10T-4815SIZ	36-75	15	660	390	150	83

Models
Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Capacitive Load, max(uf)	Ripple & Noise max, (%)	Efficiency (%)
AM10T-1205DIZ	9-18	±5	±1000	±330	80	75
AM10T-1212DIZ	9-18	±12	±410	±220	120	80
AM10T-1215DIZ	9-18	±15	±330	±200	150	80
AM10T-2405DIZ	18-36	±5	±1000	±330	80	79
AM10T-2412DIZ	18-36	±12	±410	±220	120	82
AM10T-2415DIZ	18-36	±15	±330	±200	150	84
AM10T-4805DIZ	36-75	±5	±1000	±330	80	77
AM10T-4812DIZ	36-75	±12	±410	±220	120	82
AM10T-4815DIZ	36-75	±15	±330	±200	150	83

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	12 24 48	9-18 18-36 36-75		VDC
Filter	Capacitor			
Absolute Maximum Rating	12 Vin 24 Vin 48 Vin		25 50 100	VDC
Permissible absolute maximum duration			100	ms
Transient Voltage Deviation			5	VDC

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		1500	VDC
Resistance		> 1000		MOhm
Capacitance		470		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±2		%
Short Circuit protection	Continuous			
Short Circuit restart	Auto recovery			
Over voltage protection	Zener diode clamp	>110%		VDC
Over load protection	Auto recovery	Over 110% full load		
Line voltage regulation	HL-LL	±0.5		%
Load voltage regulation (Single)	0 – 100% full load	±0.5		%
Load voltage regulation (Dual)	0 – 100% full load	±2		%
Temperature coefficient		±0.05		%/°C
Ripple & Noise	3.3 & 5V models 12 & 15V models	80 mV p-p 1% Vout p-p		mV

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	300		KHz
Operating temperature	Derating above +50 °C	-40 to +75		°C
Storage temperature		-55 to +115		°C
Case Temperature			+95	°C
Cooling	Free air convection			
Humidity			95	%
Case material		Nickel coated cooper		
Weight		18		g
Dimensions (L x W x H)	Tolerance ±0.02 inch, ±0.5mm	1.25 x 0.80 x 0.40 inches	31.80 x 20.30 x 10.20 mm	
MTBF	> 700 000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)			

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.

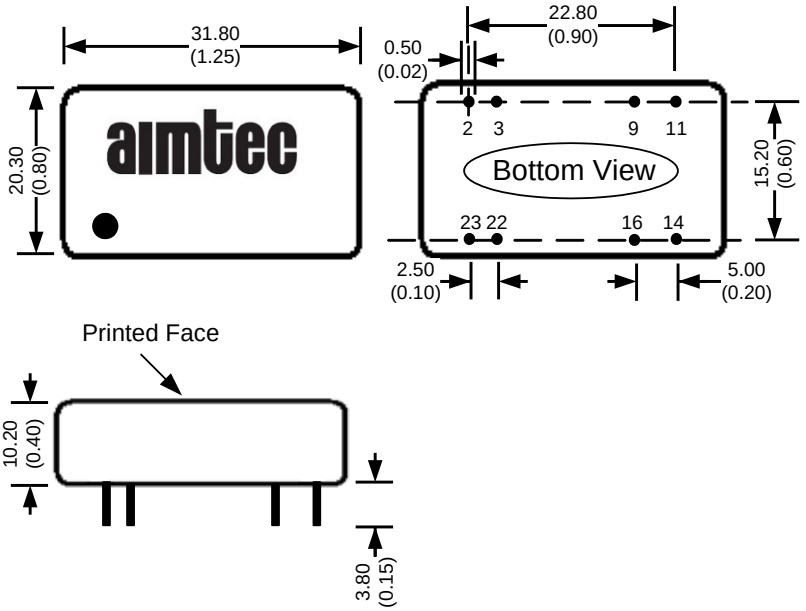
Safety Specifications

Standards	
Agency approvals	UL (pending)
Safety	EN 55022, class A
	EN 55024

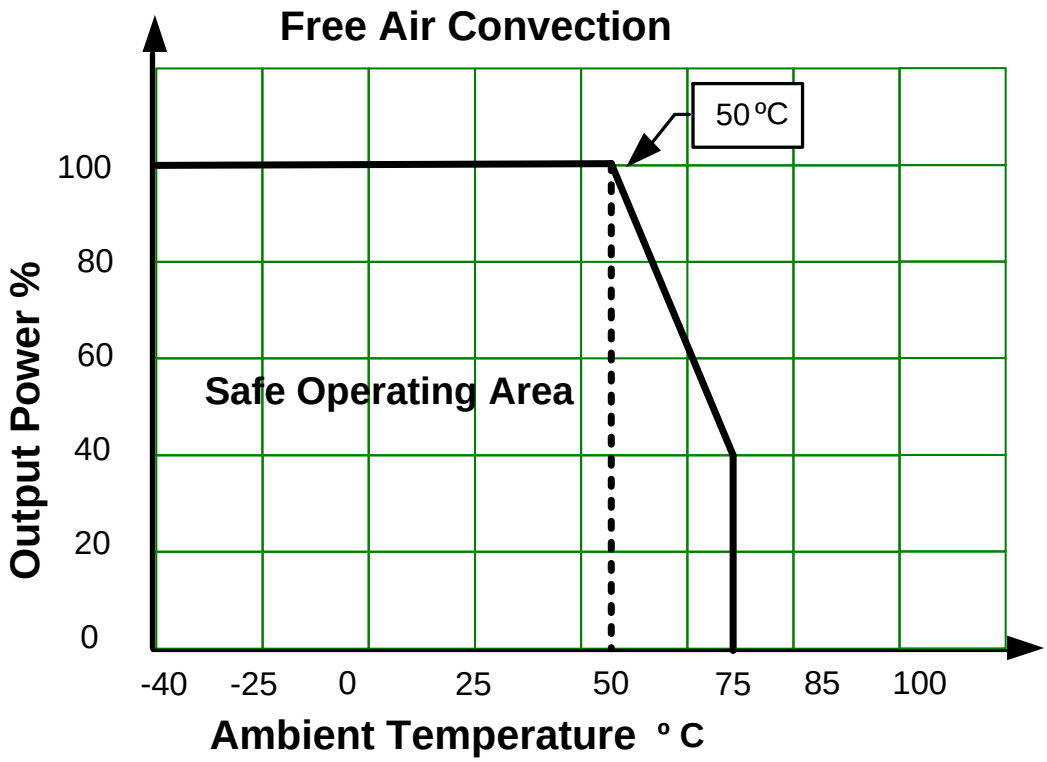
Pin Out Specifications

Pin	Single	Dual
2	-V Input	-V Input
3	-V Input	-V Input
9	N.C.	Common
10	Omitted	Omitted
11	N.C.	-V Output
14	+V Output	+ V Output
15	Omitted	Omitted
16	-V Output	Common
22	+V Input	+V Input
23	+V Input	+V Input

Dimensions



Derating



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