



FEATURES:

- SIP9 Package
- Low Ripple and Noise
- Continuous Short Circuit Protection
- -40°C to +85°C Operating Temperature Range
- Ultra-Wide Input Range 4:1
- 1500VDC I/O Isolation
- Efficiency up to 84%
- Remote ON/OFF Control



Models
Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Maximum capacitive load (µF)	Efficiency (%)
AM3GW-2403SZ	9-36	3.3	700	2200	77
AM3GW-2405SZ	9-36	5	600	1000	82
AM3GW-2412SZ	9-36	12	250	165	83
AM3GW-2415SZ	9-36	15	200	100	83
AM3GW-4803SZ	18-75	3.3	700	2200	78
AM3GW-4805SZ	18-75	5	600	1000	84
AM3GW-4812SZ	18-75	12	250	165	84
AM3GW-4815SZ	18-75	15	200	100	82

Models
Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Maximum capacitive load (µF)	Efficiency (%)
AM3GW-2405DZ	9-36	±5	±300	±470	81
AM3GW-2412DZ	9-36	±12	±125	±100	84
AM3GW-2415DZ	9-36	±15	±100	±47	83
AM3GW-4805DZ	18-75	±5	±300	±470	82
AM3GW-4812DZ	18-75	±12	±125	±100	82
AM3GW-4815DZ	18-75	±15	±100	±47	83

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.

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	24 48	9-36 18-75		VDC
Filter	Capacitor			
Start up time		10		ms
Absolute Maximum Rating	24 48		50 100	VDC
Peak Input Voltage time			100	ms
On/Off Control	ON: 0 to 0.6VDC (or open) ; OFF:2.7 to 15.0VDC, OFF idle current: 5mA, max			
Input reflected ripple current		20		mA p-p

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	3 sec		1500	VDC
Resistance		>1000		MOhm
Capacitance		500		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±1		%
Cross Regulation (Dual Output Models)	25% load on one output - 100% load on second load	±5		%
Short Circuit protection	Hiccup		Continuous	
Short circuit restart	Auto-Recovery			
Line voltage regulation	LL~HL	±0.5		%
Load voltage regulation	From 10% to 100% load	±0.5		%
	From 0% to 100% load 12Vout and 15Vout	±0.5		
	From 0% to 100% load 3.3Vout and 5Vout	±1		
Ripple & Noise	20MHz Bandwidth	50		mV p-p
Transient Response Deviation		±3		%
Transient Recovery Time		300		µs

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	250		KHz
Operating temperature		-40 to 85		°C
Storage temperature		-40 to +125		°C
Temperature coefficient		±0.02		%/°C
Maximum case temperature			100	°C
Derating	Above 75°C	3.5		%/°C
Cooling	Free Air Convection			
Humidity			95	% RH
Case material	Non conductive black plastic			
Potting Material	Epoxy (UL94V-0 rated)			
Weight		6.5		g
Dimensions (L x W x H)		1.02 x 0.36 x 0.49 inches	25.91 x 9.14 x 12.44 mm	
MTBF		>1,212,000 hrs (MIL-HDBK -217F, Ground Benign, t=+25°C)		
Max Soldering Temperature	1.5mm from case 10 second		260	°C

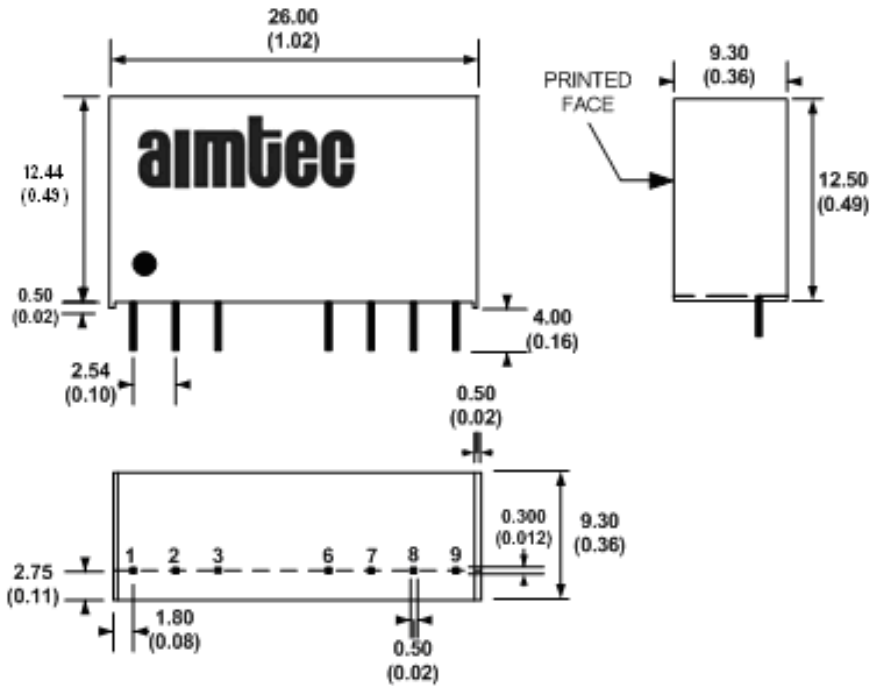
Safety Specifications

Parameters	
Agency Approval	CE
Standards	EN55022 Class A,
	IEC61000-4-2, Perf. Criteria B
	IEC61000-4-3, Perf. Criteria A
	IEC61000-4-4, Perf. Criteria B (external 220uF/100V cap required)
	IEC61000-4-5, Perf. Criteria B (external 220uF/100V cap required)
	IEC61000-4-6, Perf. Criteria A
	IEC61000-4-8, Perf. Criteria A
NOTE: designed to meet IEC 60950-1:2001	

Pin Out Specifications

Pin	Single	Dual
1	- V Input	- V Input
2	+ V Input	+ V Input
3	On/Off Control	On/Off Control
6	+ V Output	+ V Output
7	NC	Common
8	NC	NC
9	- V Output	-V Output

Dimensions



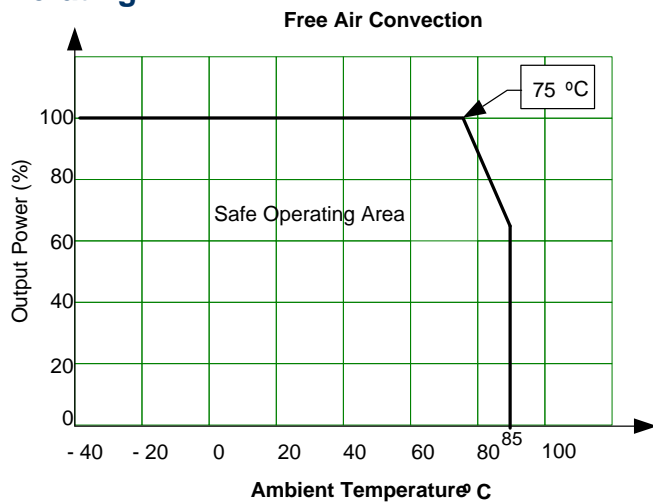
All dimensions are in millimeters (inches)

Pin diameter: 1.0 ± 0.05 (0.04 ± 0.002)

Pin pitch tolerance: ± 0.35 (± 0.014)

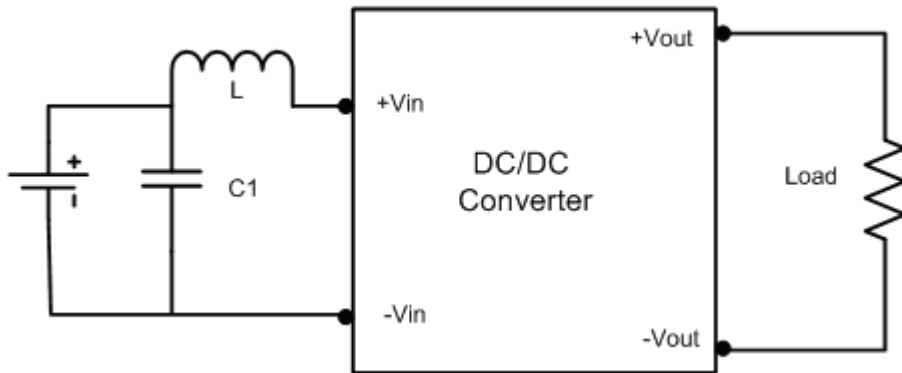
Case Tolerance: ± 0.5 (± 0.02)

Derating



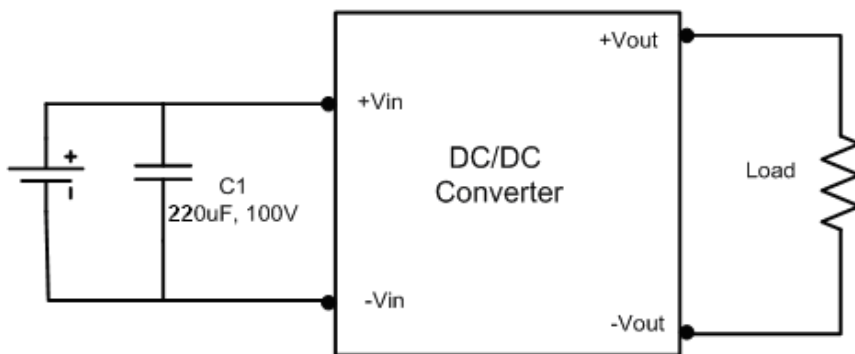
Test Circuits

Conducted Emissions:

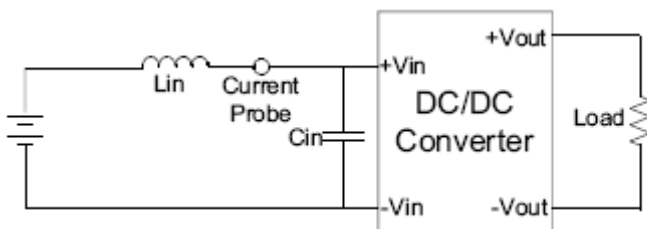


Models	C1	L1
AM2GW-24XX-Z	1210,225K/100V,X7R, 2pcs	6.8 μ H
AM2GW-48XX-Z	1210,105k/100V,X7R	56 μ H

Surge:



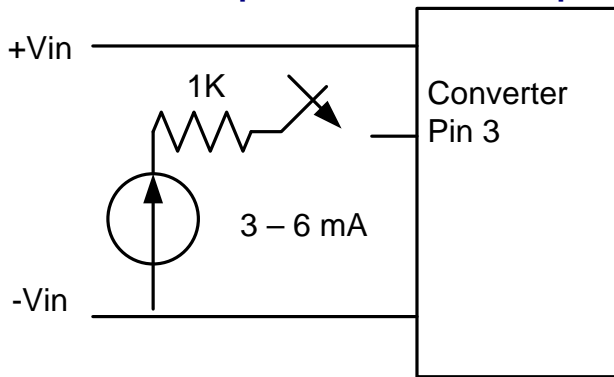
Input Reflected Ripple current:



Lin	12 μ H
Cin	47 μ F, ESR<1 Ω at 100KHz

Measurement taken at nominal input and full load.

Control ON/OFF pin connection example:



The voltage could be applied through a limiting resistor. The converter is turned on the external switching circuit is open.

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