Series AM3G-NZ

3 Watt | DC-DC Converter

RoHS

FEATURES:

- RoHS compliant
- Very low no load consumption
- Remote On/Off Control
- 8 pin SIP package
- Operating temperature -40°C to + 85°C
- Continuous Short circuit protection
- Wide 2:1 input range
- High efficiency up to 81%

Models
Single output

Model	Input Voltage (V)	Output Voltage(V)	Output Current max (mA)	Isolation (VDC)	Capacitor Load (µF)	Efficiency (%)
AM3G-1205S-NZ	9-18	5	600	1500	2200	78
AM3G-1209S-NZ	9-18	9	333	1500	1000	79
AM3G-1212S-NZ	9-18	12	250	1500	820	80
AM3G-1215S-NZ	9-18	15	200	1500	680	80
AM3G-2405S-NZ	18-36	5	600	1500	2200	78
AM3G-2409S-NZ	18-36	9	333	1500	1000	79
AM3G-2412S-NZ	18-36	12	250	1500	820	80
AM3G-2415S-NZ	18-36	15	200	1500	680	81

Models
Dual output

Model	Input Voltage (V)	Output Voltage(V)	Output Current max (mA)	Isolation (VDC)	Capacitor Load (µF)	Efficiency (%)
AM3G-1205D-NZ	9-18	±5	±300	1500	±560	78
AM3G-1209D-NZ	9-18	±9	±167	1500	±470	79
AM3G-1212D-NZ	9-18	±12	±125	1500	±330	80
AM3G-1215D-NZ	9-18	±15	±100	1500	±220	80
AM3G-2405D-NZ	18-36	±5	±300	1500	±560	78
AM3G-2409D-NZ	18-36	±9	±167	1500	±470	79
AM3G-2412D-NZ	18-36	±12	±125	1500	±330	80
AM3G-2415D-NZ	18-36	±15	±100	1500	±220	81

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	12 24	9-18 18-36		VDC
Filter		Capacitor		
Maximum Rating	12 Vin 24 Vin	22 40		VDC
Peak Input Voltage time			100	ms
On/Off Control		ON – low or open; OFF - high		

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60 sec		1500	VDC
Resistance		> 1000		MOhm
Capacitance	100kHz, 1V	80		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±3		%
Voltage balance	Dual Output 25~100% load	±5		%
Short Circuit protection		Continuous		
Short Circuit restart		Auto recovery		

Output Specifications (continued)

Parameters	Conditions	Typical	Maximum	Units
Line voltage regulation	LL~HL	±0.5		%
Load voltage regulation	load 10~100%	±1		%
Temperature coefficient		±0.03		%/°C
Ripple & Noise	At 20MHz Bandwidth	100		mV p-p

General Specifications

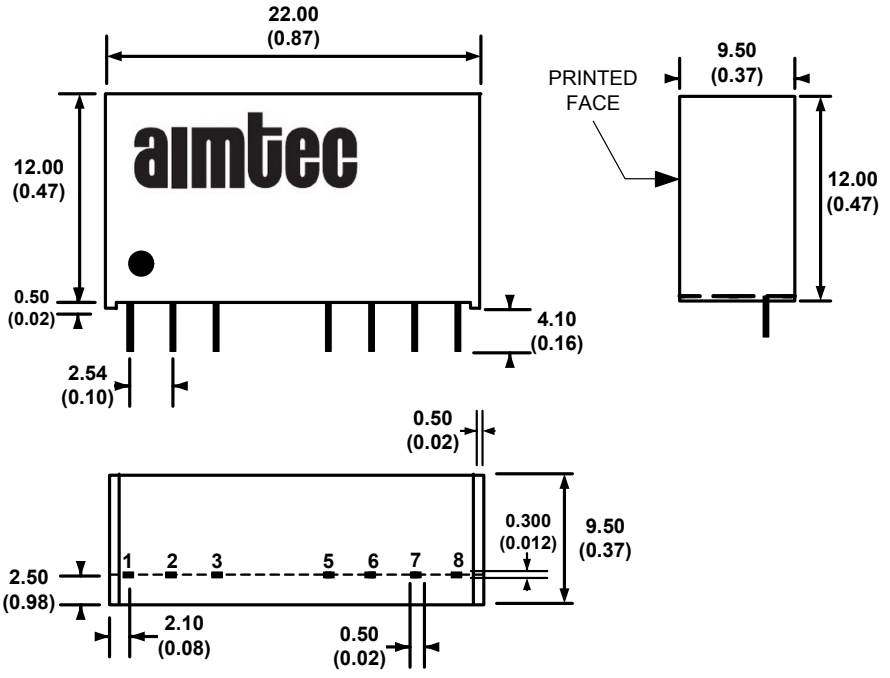
Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	>200	500	KHz
Operating temperature	With derating above 71°C	-40 to +85		°C
Storage temperature		-50 to +125		°C
No load power consumption		100		mW
Cooling	Free air convection			
Humidity			95	%
Case material	Non-conductive black plastic (UL94V-0 rated)			
Weight		6		g
Dimensions (L x H x W)	0.87 x 0.37 x 0.47 inch 22 x 9.5 x 12 mm			
MTBF	>1 000 000 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.

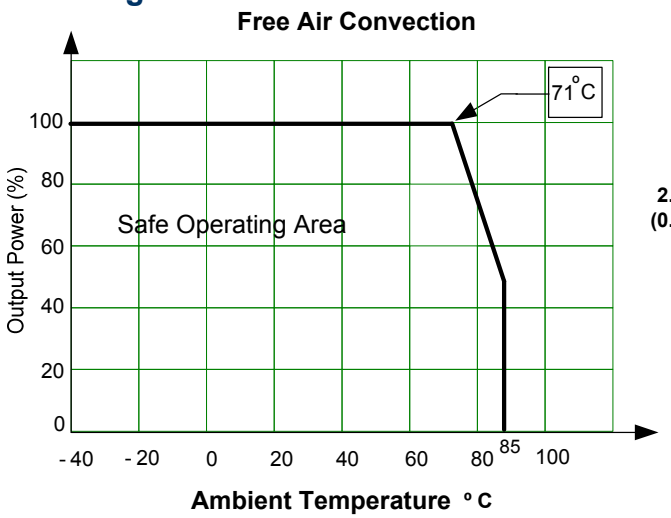
Pin Out Specifications

Pin	Single	Dual
1	- V Input	- V Input
2	+ V Input	+ V Input
3	On/Off Control	On/Off Control
5	N.C.	N.C.
6	+ V Output	+ V Output
7	- V Output	Common
8	CS	- V Output

Dimensions



Derating



CS Capacitor Table

Vout	5V	9V	12V	15V	24V
CS	47uF – 100uF		10uF – 47uF		

Control ON/OFF pin connection example:

The voltage could be applied through a limiting resistor and a switching diode. The converter is in a low power mode during high level phase.