

FEATURES:

- I/O Isolation of 3000VAC or 3500VAC/6000VDC
- Maximum Capacitive load up to 1000µF
- Operating temperature: -40 to +105°C
- Efficiency up to 81%
- SIP7 Package
- Ultra-low Isolation capacitance

Models
Dual output



Model	Input Voltage (V)	Input current FL/NL (mA)	Output Voltage (V)	Output Current max (mA)	Max Capacitive Load (uF)	Efficiency (%)
AM3DG-121508DH30-NZ	11.4 – 12.6	280 40	+15 (14.1 ~ 15.6) / -8 (-6.24 ~ -9.44)	+120 / -120	1000	81
AM3DG-151508DH30-NZ	14.25 – 15.75	230 35				
AM3DG-241508DH30-NZ	22.8 – 25.2	144 30				
AM3DG-152004DH60-NZ	13.5 – 16.5	193 16	+20 / -4	+100 / -100	220	80

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	See model's table			
Filter	Capacitor			
Absolute Maximum Rating	AM3DG-121508DH30-NZ		-0.7 - 14	VDC
	AM3DG-151508DH30-NZ		-0.7 - 16	VDC
	AM3DG-241508DH30-NZ		-0.7 - 26	VDC
	AM3DG-152004DH60-NZ		-0.7 - 21	VDC
Peak Input Voltage time			1000	ms

Isolation Specifications

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	AM3DG-152004DH60-NZ, 60sec, <1mA		3500	VAC
	AM3DG-152004DH60-NZ, 60sec, <1mA		6000	VDC
	Others, 60sec, <1mA		3000	VAC
Resistance	I/O Isolation 500VDC	>1000		MOhm
Capacitance	AM3DG-152004DH60-NZ, 100KHz/0.1V	3.5		pF
	Others, 100KHz/0.1V	6		pF

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	See tolerance curve			
Short Circuit protection	AM3DG-152004DH60-NZ		Continuous, auto restart	
	Others		1	s
Line voltage regulation	AM3DG-152004DH60-NZ, HL-LL	±1.1	±1.3	%
	Others, HL-LL	±1.1	±1.2	%
Load voltage regulation	10 – 100% load: +20Vdc output	7	9	%
	10 – 100% load: -4Vdc output	10	15	%
	10 – 100% load: +15Vdc output	8	15	%
	10 – 100% load: -8Vdc output	10	15	%
Temperature coefficient	AM3DG-152004DH60-NZ, Full load	±0.03		%/°C
	Others, Full load	±0.04		%/°C
Ripple & Noise	AM3DG-152004DH60-NZ, 20MHz Bandwidth	75		mV p-p
	Others, 20MHz Bandwidth	100	200	mV p-p

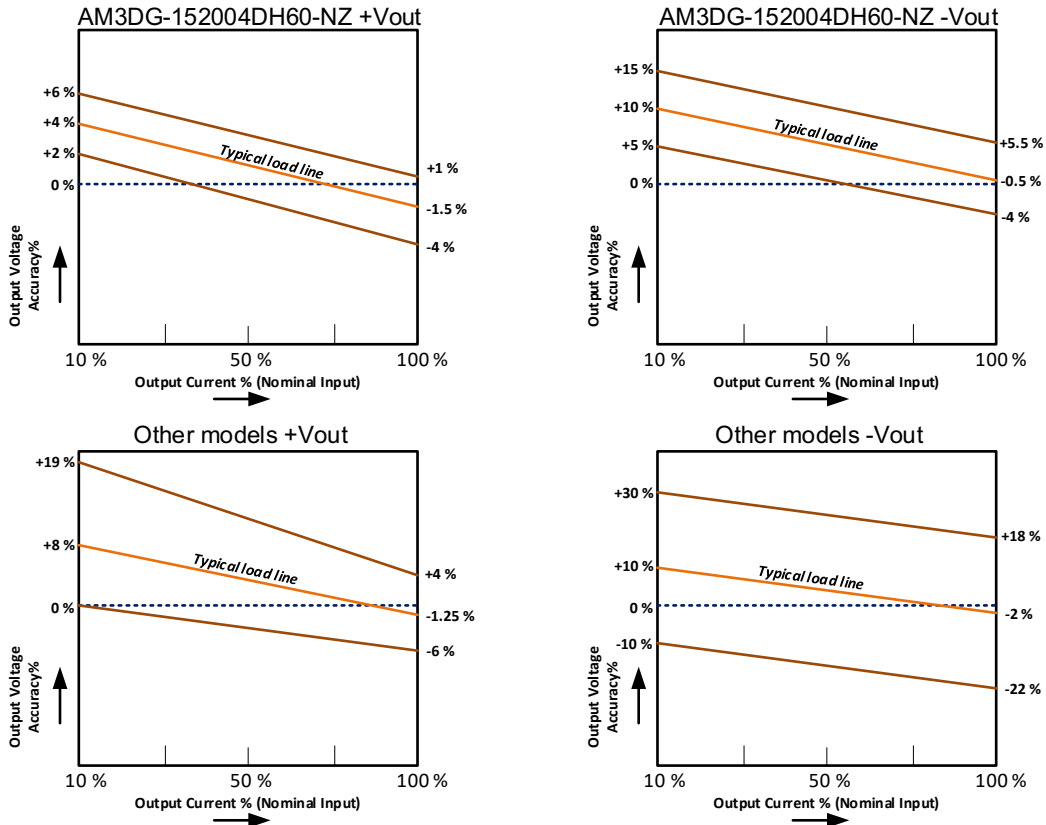
General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	AM3DG-152004DH60-NZ, 100% load	95		KHz
	Others, 100% load	100		KHz
Operating temperature	Derating above 85°C	-40 to +105		°C
Storage temperature		-55 to +125		°C
Case temperature rise	AM3DG-152004DH60-NZ, Ta=25°C		30	°C
	Others, Ta=25°C		40	°C
Cooling	Free air convection			
Humidity			95	% RH
Case material	Non-conductive black plastic (UL94V-0 rated)			
Weight	AM3DG-152004DH60-NZ	4.2		g
	Others	4.3		g
Dimensions (L x W x H)	0.77 x 0.39 x 0.49 inches 19.50 x 9.80 x 12.50 mm			
MTBF	>3,500,000hrs (MIL-HDBK -217F, Ground Benign, t=+25 °C)			
Maximum soldering temperature	1.5 mm from case for 10sec		300	°C

Safety Specifications

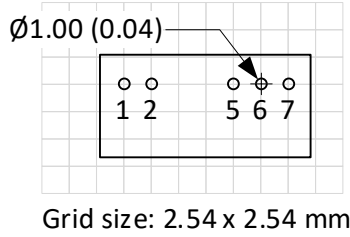
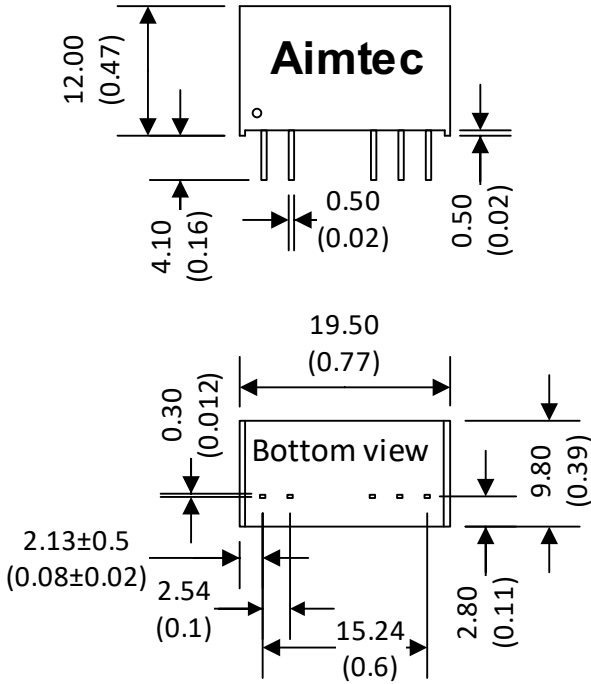
Parameters		
Agency approvals	cULus	
Standards	UL 60950-1 (AM3DG-152004DH60-NZ only)	
	EN 55022 Class B for AM3DG-152004DH60-NZ model (see recommended circuit)	
	Electrostatic Discharge Immunity	IEC 61000-4-2, Perf. Criteria B (ESD Contact +/- 8KV), measured on the 3000VAC isolated models IEC 61000-4-2, Perf. Criteria B (ESD Contact +/- 6KV), measured on the AM3DG-152004DH60-NZ
	Electrical Fast Transient / Burst Immunity	IEC 61000-4-4, Perf. Criteria B (EFT +/- 2KV), measured on the 3000VAC isolated models
Surge Immunity	IEC 61000-4-5, Perf. Criteria B (Surge Input to Output +/- 2KV), measured on the 3000VAC isolated models	

Tolerance curve



Dimensions

AM3DG-152004DH60-NZ

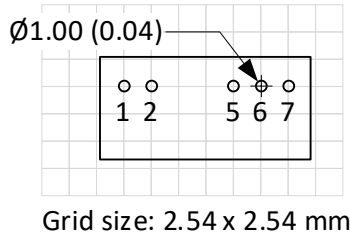
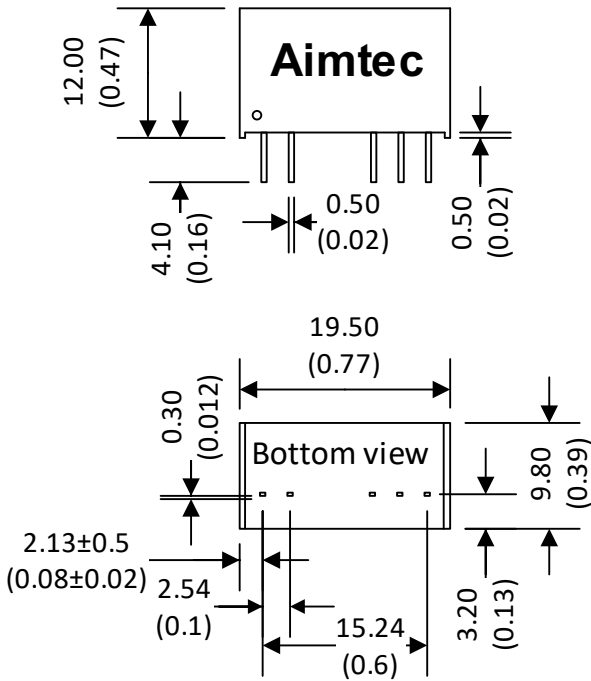


Pin Out Specifications

Pin	Dual
1	+ V Input
2	- V Input
5	- V Output
6	Common
7	+ V Output

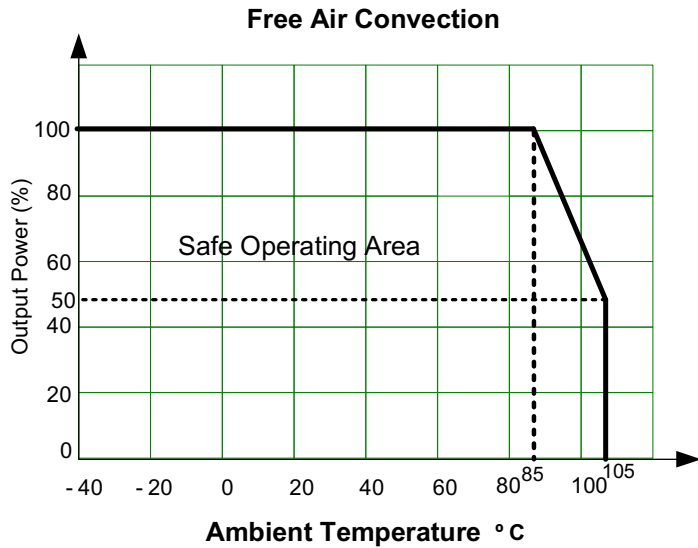
Note:
 Unit: mm (inch)
 General tolerance: ±0.1 (0.004)
 Pin tolerance: ±0.5 (0.02)

Other models

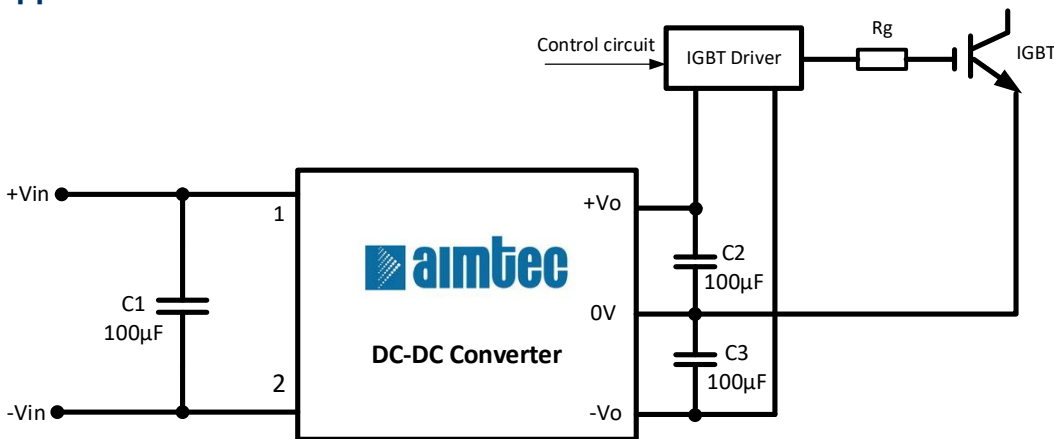


Note:
 Unit: mm (inch)
 General tolerance: ±0.1 (0.004)
 Pin tolerance: ±0.5 (0.02)

Derating



Application Circuit



Note: Low Internal resistance capacitors suggested

EMI Recommended Circuit (Class B for AM3DG-152004DH60-NZ)



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