



**FEATURES:**

- I/O Isolation of 3000VAC or 3500VAC/6000VDC
- Maximum Capacitive load up to 1000µF
- Operating temperature: -40 to +105°C
- Efficiency up to 83%
- 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 (14.25 ~ 15.75) / -8 (-6.4 ~ -9.6)	+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	196 16	+20 / -4	+100 / -100	220	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	See model's table			
Filter	Capacitor			
Absolute Maximum Rating	AM3DG-121508DH30-NZ		-0.7 - 14	VDC
	AM3DG-151508DH30-NZ		-0.7 - 16	
	AM3DG-241508DH30-NZ		-0.7 - 26	
	AM3DG-152004DH60-NZ		-0.7 - 21	
Peak Input Voltage time			100	ms

**Isolation Specifications**

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

**Output Specifications**

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	AM3DG-152004DH60-NZ	±6		%
	Others	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, +15 Vout		±5	
	Others, HL-LL, -8 Vout		±20	
Load voltage regulation	10 – 100% load: 20Vdc output		±15	%
Temperature coefficient	Full load		±0.03	%/°C
Ripple & Noise	AM3DG-152004DH60-NZ, 20MHz Bandwidth		75	mV p-p
	Others, 20MHz Bandwidth	100	200	

**General Specifications**

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	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	
Cooling	Free air convection		
Humidity			95 % RH
Case material	Non-conductive black plastic (UL94V-0 rated)		
Weight	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

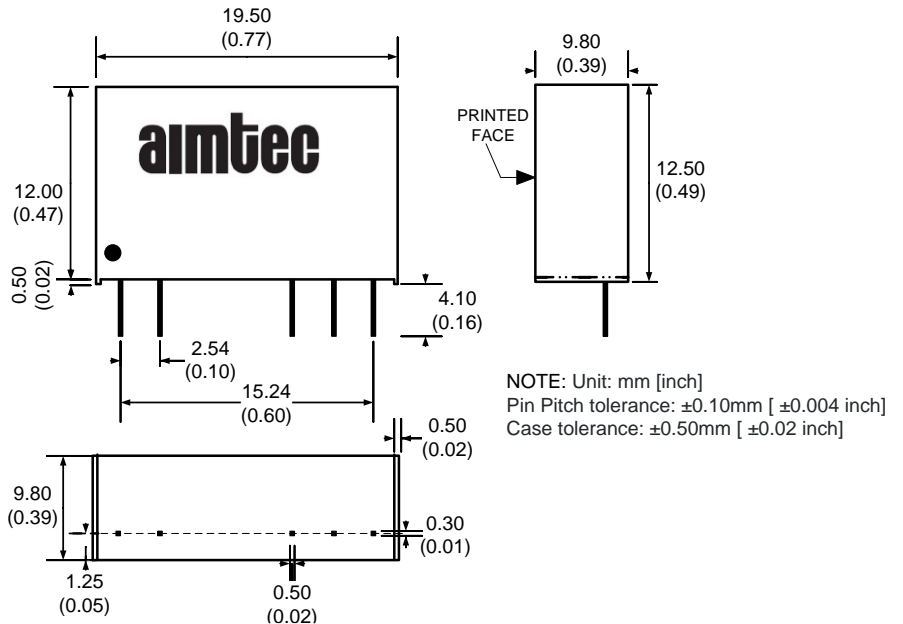
Parameters	
Standards	EN55022 Class B for AM3DG-152004DH60-NZ model (see recommended circuit)
	IEC61000-4-2, Perf. Criteria B (ESD Contact +/- 8KV)
	IEC61000-4-4, Perf. Criteria B (EFT +/- 2KV), measured on the 3000VAC isolated models
	IEC61000-4-5, Perf. Criteria B (Surge Input to Output +/- 2KV), measured on the 3000VAC isolated models

## Pin Out Specifications

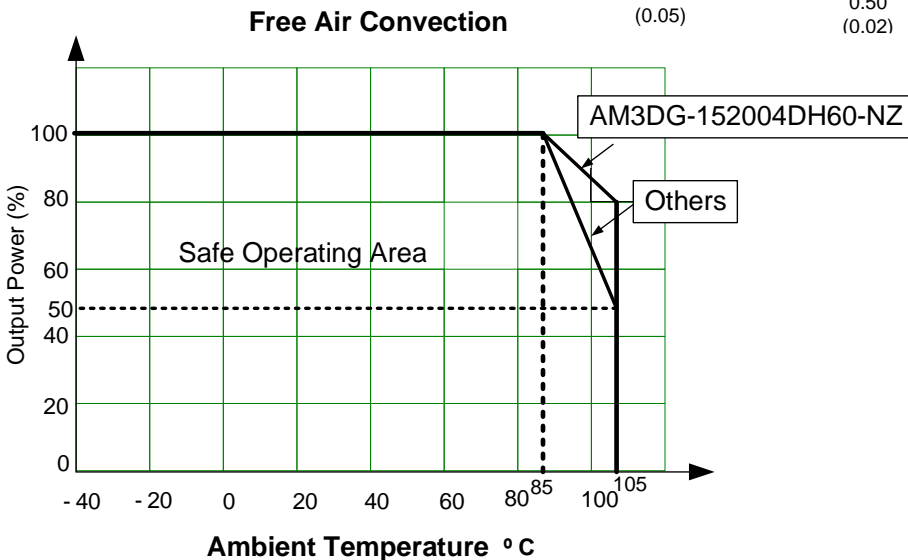
Pin	Dual
1	+ V Input
2	- V Input
5	- V Output
6	Common
7	+ V Output

\* N.C. Not Connected

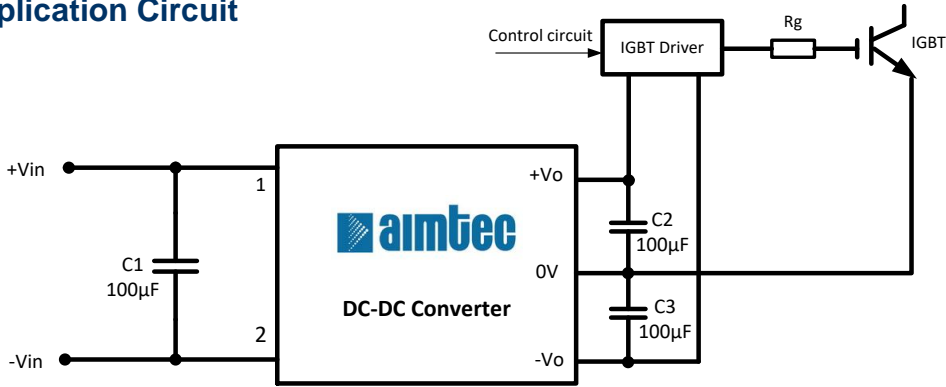
## Dimensions



## Derating

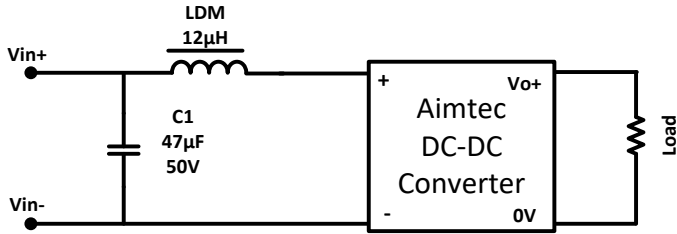


### Application Circuit



Note: Low Internal resistance capacitors suggested

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



**NOTE:** 1. Datasheets are updated as needed and as such, specifications are subject to change without notice. Once printed or downloaded, datasheets are no longer controlled by Aimtec; refer to [www.aimtec.com](http://www.aimtec.com) for the most current product specifications. 2. Product labels shown, including safety agency certifications on labels, may vary based on the date manufactured. 3. Mechanical drawings and specifications are for reference only. 4. All specifications are measured at an ambient temperature of 25°C, humidity < 75%, nominal input voltage and at rated output load unless otherwise specified. 5. Aimtec may not have conducted destructive testing or chemical analysis on all internal components and chemicals at the time of publishing this document. CAS numbers and other limited information are considered proprietary and may not be available for release. 6. This product is not designed for use in critical life support systems, equipment used in hazardous environments, nuclear control systems or other such applications which necessitate specific safety and regulatory standards other than the ones listed in this datasheet. 7. Warranty is in accordance with Aimtec's standard Terms of Sale available at [www.aimtec.com](http://www.aimtec.com).