



**FEATURES:**

- I/O Isolation of 3000VAC
- Efficiency up to 80%
- Ultra-low Isolation capacitance
- SIP 7 Multiple Manufacturers pin compatible
- Extended temperature range: -40 to +105°C
- Continuous short circuit protection

**Models**  
**Single output**



Model	Input Voltage (V)	Input current FL (mA)	Output Voltage (V)	Output Current max (mA)	Max Capacitive Load (uF)	Efficiency (%)
AM1DG-1509SH30-NZ	14.5 – 15.5	84	9 (8 ~ 10)	111	220	80

**Models**  
**Dual output**

Model	Input Voltage (V)	Input current FL (mA)	Output Voltage (V)	Output Current max (mA)	Max Capacitive Load (uF)	Efficiency (%)
AM1DG-1509DH30-NZ	14.5 – 15.5	84	+9 (8 ~ 10) / -9 (8 ~ 10)	+55/-55	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	15	14.5 – 15.5		VDC
Filter	Capacitor			
Absolute Maximum Rating			-0.7 - 16	VDC
Peak Input Voltage time			100	ms
No Load Input Current			20	mA

**Isolation Specifications**

Parameters	Conditions	Typical	Rated	Units
Tested I/O voltage	60sec, <1mA		3000	VAC
Resistance		>1000		MOhm
Capacitance	100KHz/0.1V	6.6		pF

**Output Specifications**

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±6		%
Short Circuit protection	Continuous, auto restart			
Line voltage regulation		±1.2		% of Vin
Load voltage regulation	10 – 100% load	±12	±26	%
Temperature coefficient	Full load		±0.03	%/°C
Ripple & Noise	20MHz Bandwidth	100	200	mV p-p

**General Specifications**

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	100	300	KHz
Operating temperature	Derating above 85°C	-40 to +105		°C
Storage temperature		-55 to +125		°C
Maximum case temperature			105	°C

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

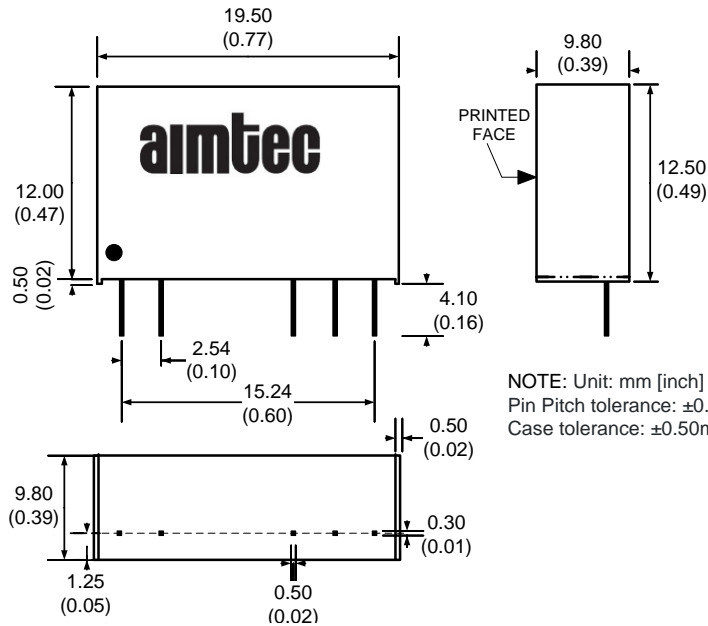
Parameters	
Approvals	UL
	UL60950-1
Standards	EN55022 Class B (see recommended circuit)
	IEC61000-4-2, Perf. Criteria B (ESD Contact +/- 8KV)

## Pin Out Specifications

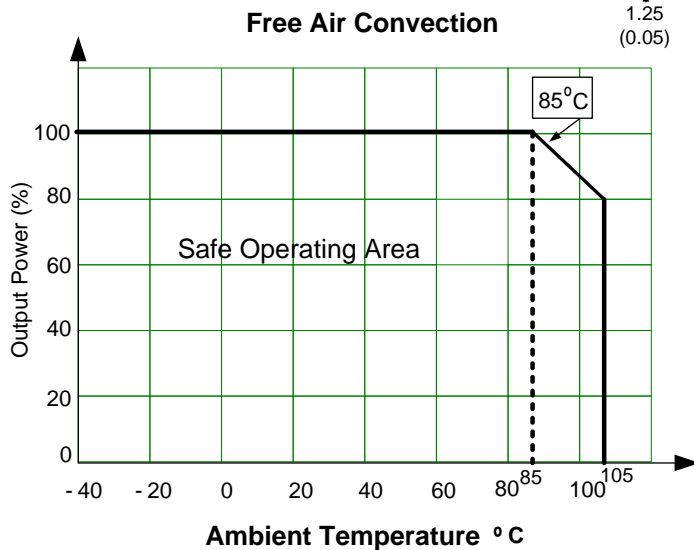
Pin	Single	Dual
1	+ V Input	+ V Input
2	- V Input	- V Input
5	- V Output	- V Output
6	N. C.*	Common
7	+ V Output	+ V Output

\* N.C. Not Connected

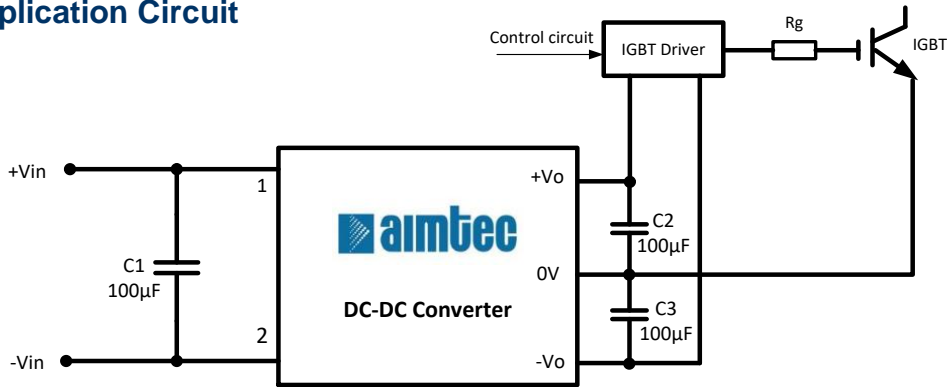
## Dimensions



## Derating

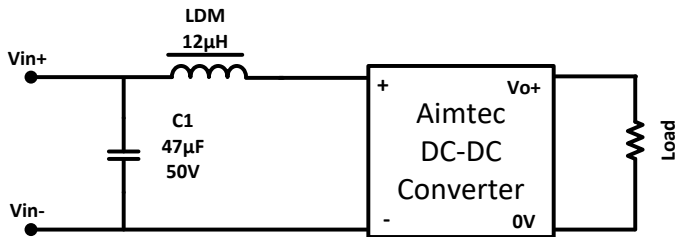


### Application Circuit



Note: Low Internal resistance capacitors suggested

### EMI Recommended Circuit (Class B)



**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 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).