

Picture coming soon

FEATURES:

- I/O Isolation of 3,000VDC
- Efficiency up to 85%
- 2:1 Wide Input Voltage Range
- Industry Standard Pin-out
- IGBT dedicated DC-DC converter
- Operating temperature range: -40 to +85°C
- Continuous short circuit protection
- Output Over-Voltage Protection

Models
Dual output



Model	Input Voltage (V)	Input current FL (mA)	Output Voltage (V)	Max Output Current (mA)	Min Output Current (mA)	Max Capacitive Load (uF)	Efficiency (%)
AM5TG-121509DH30-NZ	9-18	471	+15 / -9	±200	±10	1000	85
AM5TG-241509DH30-NZ	18-36	235	+15 / -9	±200	±10	1000	85

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	12V Input	9-18	25	VDC
	24V Input	18-36	50	VDC
Filter	Capacitor			
No Load Input Current	12V Input		16	mA
	24V Input		8	mA

Isolation Specifications

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

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	Supplement Output (-9V output)	±1	±2	%
	Full load, LL – HL	±3	±5	%
Short Circuit protection	Continuous, auto restart			
Line voltage regulation	LL – HL	±0.2	±0.5	% of Vin
Load voltage regulation	5 – 100% load	±0.5	±1	%
Temperature coefficient	Full load		±0.03	%/°C
Ripple & Noise	20MHz Bandwidth	100	200	mV p-p
Over voltage protection		120	140	% Vo

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	300		kHz
Operating temperature	Derating above 71°C	-40 to +85		°C
Storage temperature		-55 to +125		°C
Case temperature Rise	Ta = 25 °C		40	°C
Cooling	Free air convection			
Humidity			95	% RH
Case material	Non-conductive black plastic (UL94V-0 rated)			
Weight		14		g
Dimensions (L x W x H)	1.244 x 0.799 x 0.402 inches	31.60 x 20.30 x 10.20 mm		
MTBF	>1,000,000hrs (MIL-HDBK -217F, Ground Benign, t=+25 °C)			
Maximum soldering temperature	1.5 mm from case for 10sec		300	°C

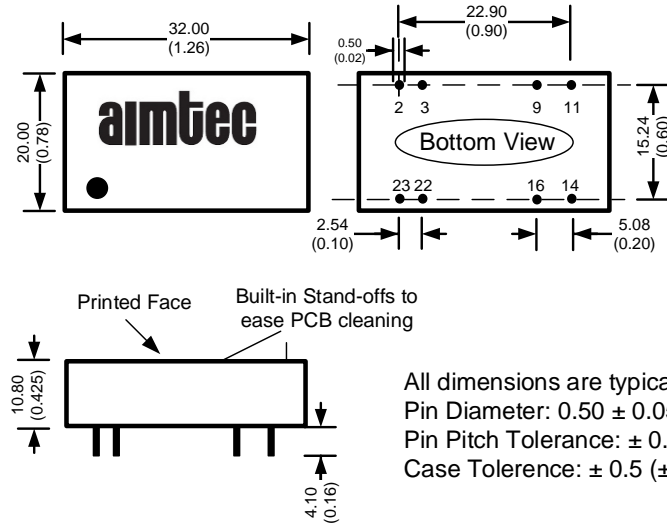
Safety Specifications

Parameters		
Standards	EMI - Conducted and radiated emission	EN55022, class A (with the recommended EMC circuit)
	Electrostatic Discharge Immunity	IEC 61000-4-2, Contact +/-4kV, Criteria B
	RF, Electromagnetic Field Immunity	IEC 61000-4-3, 10V/m, Criteria A
	Electrical Fast Transient/Burst Immunity	IEC 61000-4-4, +/-2kV, Criteria B, (with the recommended EMC circuit)
	Surge Immunity	IEC 61000-4-5, +/-2kV, Criteria B, (with the recommended EMC circuit)
	RF, Conducted Disturbance Immunity	IEC 61000-4-6, Criteria A
	Immunity of Short interruption	IEC 61000-4-29, 0%-70%, Criteria B

Pin Out Specifications

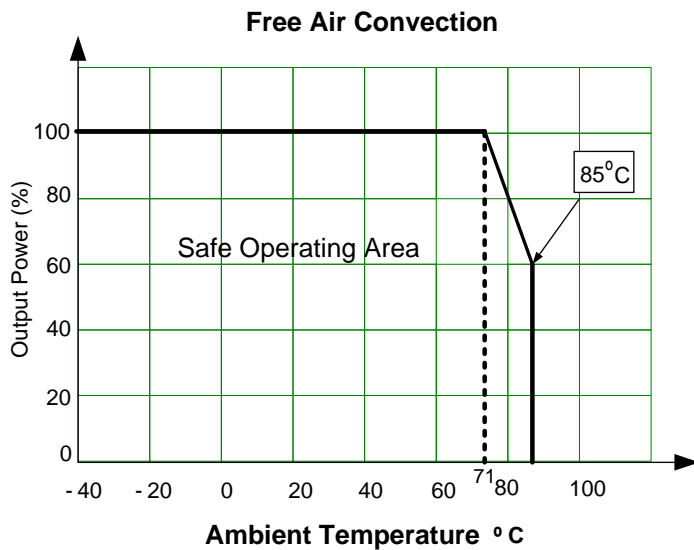
Pin	Dual
2	-Vin
3	-Vin
9	Common
11	- V Output
14	+ V Output
16	Common
22	+Vin
23	+Vin

Dimensions



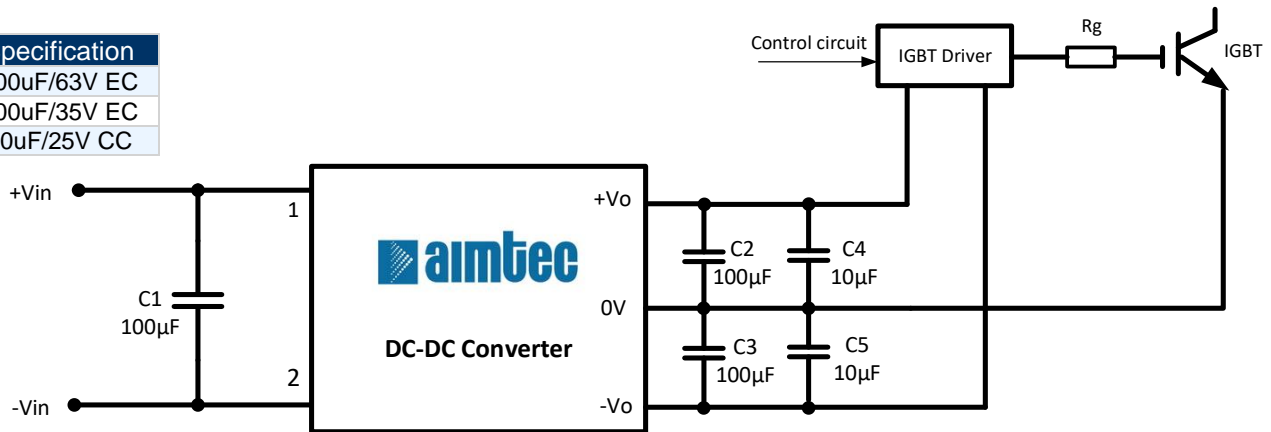
All dimensions are typical: millimeters (inches)
 Pin Diameter: 0.50 ± 0.05 (0.02 ± 0.002)
 Pin Pitch Tolerance: ± 0.35 (± 0.014)
 Case Tolerance: ± 0.5 (± 0.02)

Derating

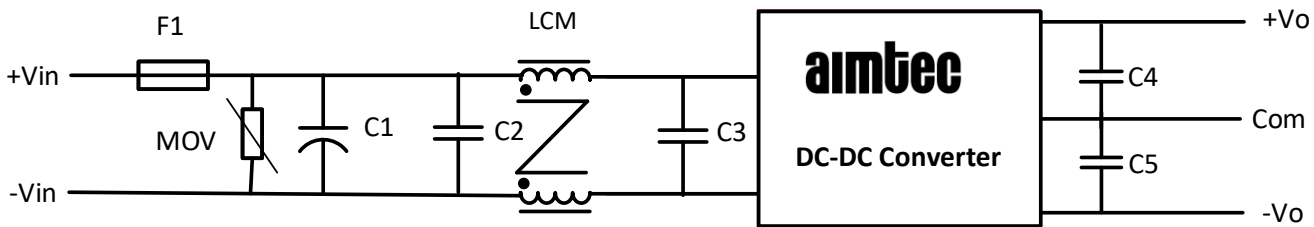


Application Circuit

	Specification
C1	100uF/63V EC
C2,C3	100uF/35V EC
C4,C5	10uF/25V CC



EMI Recommended Circuit (Class A)



	AM5TG-121509H30-NZ	AM5TG-241509H30-NZ
F1	Choose based on input current	Choose based on input current
MOV1	S14K25	S14K35
C1	680uF/25V	330uF/50V
C2, C3	4.7uF/50V	4.7uF/50V
C4, C5	100uF/35V	100uF/35V
LCM	1mH	3.3mH

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 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.