Series AM40U-IZ

40Watt | DC-DC Converter

Picture coming soon

FEATURES:

- Wide Input 2:1 Range
- 1500 & 3000 VDC Isolation
- Efficiency up to 87%
- Regulated Output
- Soft Start
- Adjustable Output Voltage
- Remote ON/OFF Function
- Over Load, Voltage & Short Circuit Protection
- Operating temperature -40°C to + 75°C

RoHS

Models
Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (A)	Isolation (VDC)	Efficiency (%)
AM40U-1203SIZ	9-18	3.3	7	1500	85
AM40U-1205SIZ	9-18	5	7	1500	85
AM40U-1212SIZ	9-18	12	3	1500	85
AM40U-1215SIZ	9-18	15	2.3	1500	85
AM40U-1224SIZ	9-18	24	1.5	1500	85
AM40U-2403SIZ	18-36	3.3	7	1500	82
AM40U-2405SIZ	18-36	5	7	1500	82
AM40U-2412SIZ	18-36	12	3	1500	82
AM40U-2415SIZ	18-36	15	2.3	1500	82
AM40U-2424SIZ	18-36	24	1.5	1500	82
AM40U-4803SIZ	36-75	3.3	7	1500	83
AM40U-4805SIZ	36-75	5	7	1500	83
AM40U-4812SIZ	36-75	12	3	1500	83
AM40U-4815SIZ	36-75	15	2.3	1500	83
AM40U-4824SIZ	36-75	24	1.5	1500	83
AM40U-1203SH30IZ	9-18	3.3	7	3000	85
AM40U-1205SH30IZ	9-18	5	7	3000	85
AM40U-1212SH30IZ	9-18	12	3	3000	85
AM40U-1215SH30IZ	9-18	15	2.3	3000	85
AM40U-1224SH30IZ	9-18	24	1.5	3000	85
AM40U-2403SH30IZ	18-36	3.3	7	3000	82
AM40U-2405SH30IZ	18-36	5	7	3000	82
AM40U-2412SH30IZ	18-36	12	3	3000	82
AM40U-2415SH30IZ	18-36	15	2.3	3000	82
AM40U-2424SH30IZ	18-36	24	1.5	3000	82
AM40U-4803SH30IZ	36-75	3.3	7	3000	83
AM40U-4805SH30IZ	36-75	5	7	3000	83
AM40U-4812SH30IZ	36-75	12	3	3000	83
AM40U-4815SH30IZ	36-75	15	2.3	3000	83
AM40U-4824SH30IZ	36-75	24	1.5	3000	83

Models
Dual output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (A)	Isolation (VDC)	Efficiency (%)
AM40U-1205DIZ	9-18	±5	±3.5	1500	83
AM40U-1212DIZ	9-18	±12	±1.5	1500	83
AM40U-1215DIZ	9-18	±15	±1.15	1500	83
AM40U-2405DIZ	18-36	±5	±3.5	1500	80
AM40U-2412DIZ	18-36	±12	±1.5	1500	80
AM40U-2415DIZ	18-36	±15	±1.15	1500	80
AM40U-4805DIZ	36-75	±5	±3.5	1500	81
AM40U-4812DIZ	36-75	±12	±1.5	1500	81
AM40U-4815DIZ	36-75	±15	±1.15	1500	81

Models

Dual output (continued)

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (A)	Isolation (VDC)	Efficiency (%)
AM40U-1205DH30IZ	9-18	±5	±3.5	3000	83
AM40U-1212DH30IZ	9-18	±12	±1.5	3000	83
AM40U-1215DH30IZ	9-18	±15	±1.15	3000	83
AM40U-2405DH30IZ	18-36	±5	±3.5	3000	80
AM40U-2412DH30IZ	18-36	±12	±1.5	3000	80
AM40U-2415DH30IZ	18-36	±15	±1.15	3000	80
AM40U-4805DH30IZ	36-75	±5	±3.5	3000	81
AM40U-4812DH30IZ	36-75	±12	±1.5	3000	81
AM40U-4815DH30IZ	36-75	±15	±1.15	3000	81

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	12	9-18		VDC
	24	18-36		
	48	36-75		
Filter		π(Pi) Network		
Absolute Maximum Rating	12		25	VDC
	24		50	
	48		100	
On/Off control		ON –TTL High or Open ; OFF – TTL Low or short		

Isolation Specifications

Parameters	Conditions	Typical	Maximum	Units
Tested I/O voltage	3 sec	1500 or 3000		VDC
Resistance	500VDC	>1000		MOhm

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy		±2		%
Over voltage protection		Zener diode clamp		
Over current protection		>110 FL		%
Short Circuit protection		Continuous		
Short circuit restart		Auto-Restart		
Line voltage regulation		±0.5		% of Vin
Load voltage regulation (Single)	Iout=25% to 100%	±0.5		%
Load voltage regulation (Dual)	Iout=25% to 100%	±2		%
Temperature coefficient		±0.05		%/°C
Ripple & Noise	20MHz Bandwidth (5 & 3.3Vout)	80		mV p-p
	All other output models	1		% p-p Vout
Voltage adjustment range		±10		%
Minimum Load Current		25		% of Max

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	250		KHz
Operating temperature		-40 to +75		°C
Storage temperature		-55 to +115		°C
Maximum case temperature		100		°C
Derating	See chart below	45		°C
Cooling		Free air convection		
Humidity			95	% RH

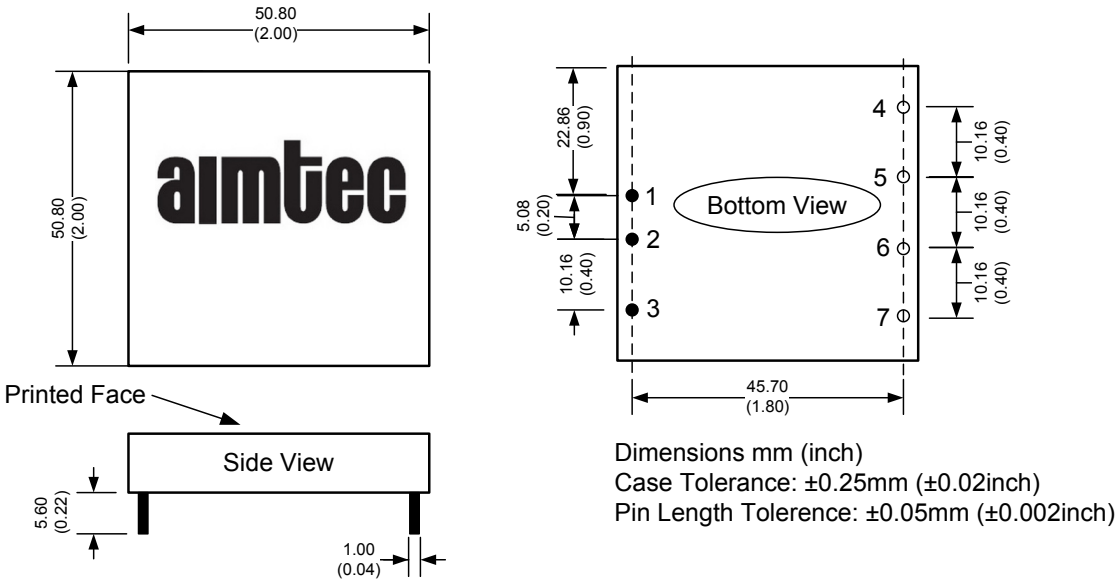
General Specifications (continued)

Parameters	Conditions	Typical	Maximum	Units
Case material	Nickel – coated Copper with nonconductive base			
Weight	65			g
Dimensions (L x W x H)	2.00 x 2.00 x 0.40 inches		50.81 x 50.81 10.20 mm	
MTBF	>1 500 000 hrs (MIL-HDBK-217 F at +25 °C)			
Maximum soldering temperature				°C
Transient recovery time	50% load step change		280	uS

Pin Out Specifications

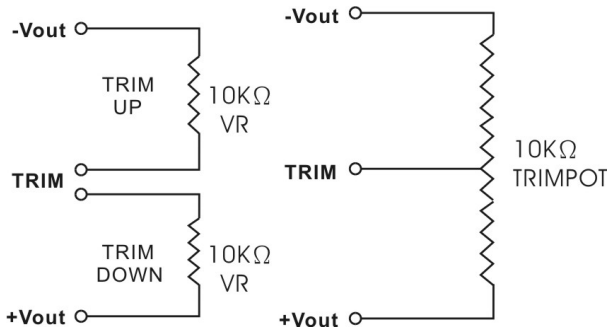
Pin	1000 & 3000VDC	
	Single	Dual
1	+V Input	+V Input
2	-V Input	-V Input
3	On/Off Control	On/Off Control
4	No pin	+V Output
5	+V Output	Common
6	-V Output	-V Output
7	Trim	Trim

Dimensions

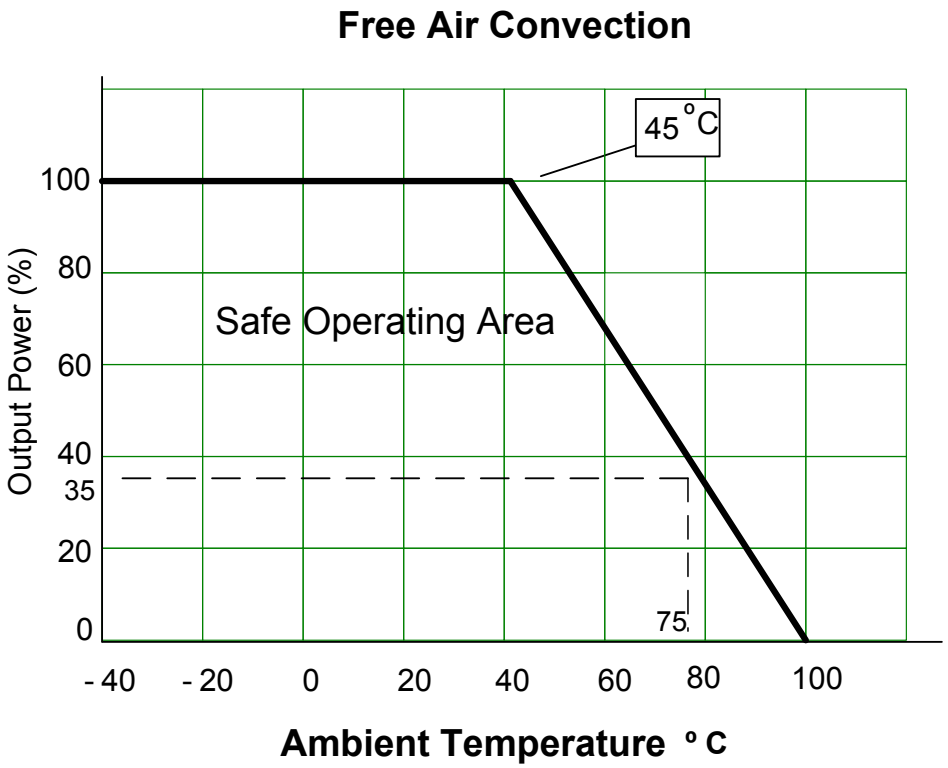


Dimensions mm (inch)
Case Tolerance: ±0.25mm (±0.02inch)
Pin Length Tolerence: ±0.05mm (±0.002inch)

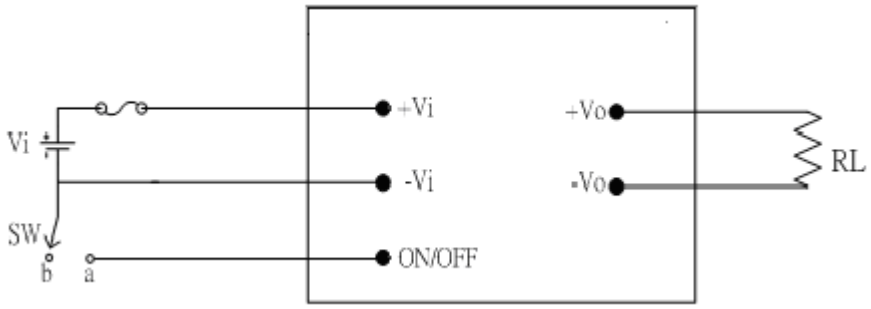
Trimming



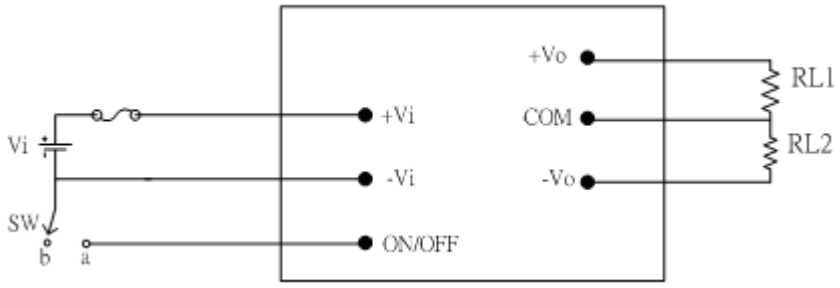
Derating



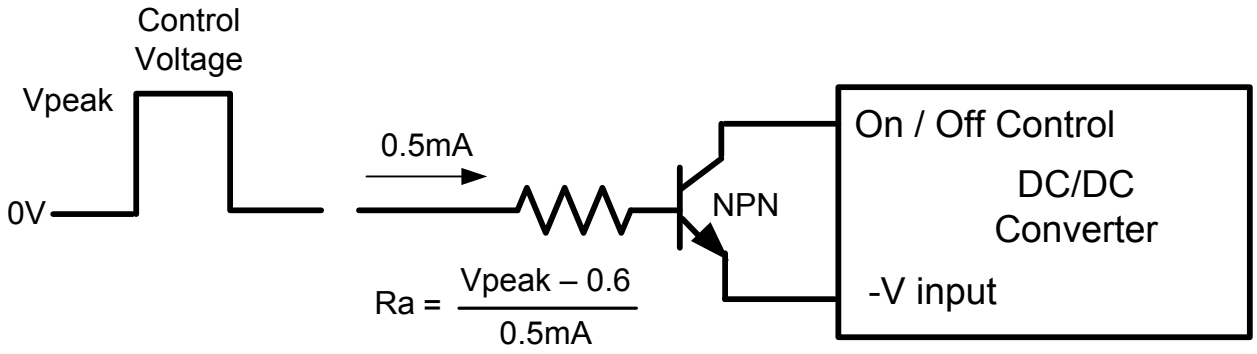
Control ON/OFF pin connection example
Single Output



Dual Output



Digital Control Circuit:



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