

TESTING FEATURES

- Single Output
- RoHS Compliant
- High Power Density
- Efficiency up to 80%
- 14-pin SMT Package
- 1000VDC I/O Isolation
- MTBF > 3.5 Million Hours
- Industry Standard Pin-out
- Unregulated Output Types
- No External Components Required
- 3.3, 5, 9, 12, and 15VDC Output Voltages
- Industrial Temperature Range (-40°C to +85°C)



DESCRIPTION

The AMI series from Wall Industries, Inc. is highly suitable for high speed pick and place machine operation. The operating temperature range of -40°C to +85°C is ideal for designers needing industrial temperature operation. This series has 3.3, 5, 9, 12, and 15VDC single output voltages available. This series is RoHS compliant.

SPECIFICATIONS: AMI Series

All specifications apply @ 25°C ambient unless otherwise noted

INPUT SPECIFICATIONS

Input Voltage Range.....	3.3VDC nom input.....	2.97 – 3.63 VDC
	5VDC nom input.....	4.5 – 5.5 VDC
	9VDC nom input.....	8.1 – 9.9 VDC
	12VDC nom input.....	10.8 – 13.2 VDC
	15VDC nom input.....	13.5 – 16.5 VDC

Input Filtercapacitor

OUTPUT SPECIFICATIONS

Output Voltage	see table
Voltage Accuracy (100% full load).....	±5% max.
Output Current	see table
Output Power	1W
Line Regulation (LL - HL)	1.2% / 1% of Vin typ.
Load Regulation (10% to 100% FL).....	3.3 VDC output..... 15% typ.
	5 VDC output..... 15% max.
	9VDC output..... 9% max.
	12VDC output..... 7.5% max
	15 VDC output..... 7% max.
Ripple/Noise (20MHz BW).....	100mVp-p max.
Transient Response Time (50% load step change)	350µs typ.

PROTECTION SPECIFICATIONS

Short Circuit Protection 1 sec max (short term)

GENERAL SPECIFICATIONS

Efficiency	Up to 80% (<i>see Note 1</i>)
Switching Frequency (full load, nominal input).....	100KHz typ.
Isolation Voltage (Input to Output).....	1000VDC
Isolation Resistance.....	1000MΩ min (500VDC)

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature (ambient)	-40°C to +85°C
Storage Temperature.....	-40°C to +100°C
Humidity (non-condensing)	95% max.
Cooling	free air convection
MTBF.....	3,500,000 hours (MIL-HDBK-217F @ 25°C)

PHYSICAL SPECIFICATIONS

Weight	1.0g (0.035oz)
Case Material.....	DAP
Dimensions.....	0.5 x 0.3 x 0.25 inches 12.7 x 7.6 x 6.25 mm

Due to advances in technology, specifications subject to change without notice

MODEL SELECTION GUIDE

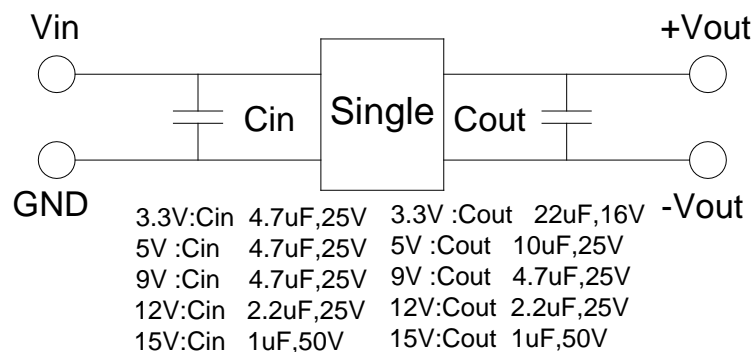
Model Number	Input Voltage Range	Output Voltage	Output Current	Output Power
AM3333-303NI	3.3 VDC (2.97 – 3.63 VDC)	3.3 VDC	303mA	1W
AM3305-200NI		5 VDC	200mA	1W
AM3309-111NI		9 VDC	111mA	1W
AM3312-83NI		12 VDC	83mA	1W
AM3315-66NI		15 VDC	66mA	1W
AM533-303NI	5 VDC (4.5 – 5.5 VDC)	3.3 VDC	303mA	1W
AM505-200NI		5 VDC	200mA	1W
AM509-111NI		9 VDC	111mA	1W
AM512-83NI		12 VDC	83mA	1W
AM515-66NI		15 VDC	66mA	1W
AM933-303NI	9 VDC (8.1 – 9.9 VDC)	3.3 VDC	303mA	1W
AM905-200NI		5 VDC	200mA	1W
AM909-111NI		9 VDC	111mA	1W
AM912-83NI		12 VDC	83mA	1W
AM915-66NI		15 VDC	66mA	1W
AM1233-303NI	12 VDC (10.8 – 13.2 VDC)	3.3 VDC	303mA	1W
AM1205-200NI		5 VDC	200mA	1W
AM1209-111NI		9 VDC	111mA	1W
AM1212-83NI		12 VDC	84mA	1W
AM1215-66NI		15 VDC	67mA	1W
AM1533-303NI	15 VDC (13.5 – 16.5 VDC)	3.3 VDC	303mA	1W
AM1505-200NI		5 VDC	200mA	1W
AM1509-111NI		9 VDC	111mA	1W
AM1512-83NI		12 VDC	83mA	1W
AM1515-66NI		15 VDC	66mA	1W

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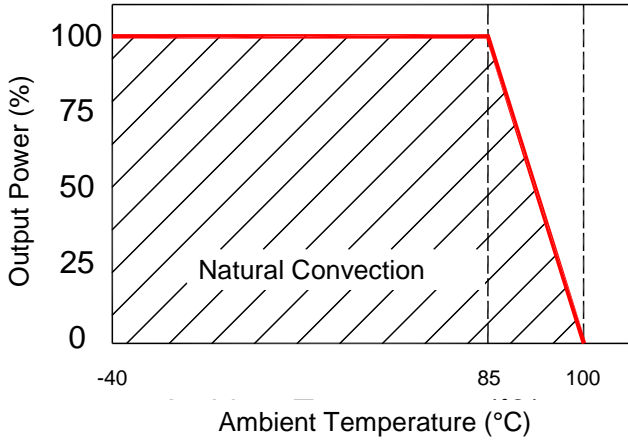
NOTES

1. The efficiency will increase with an increase in the input voltage.

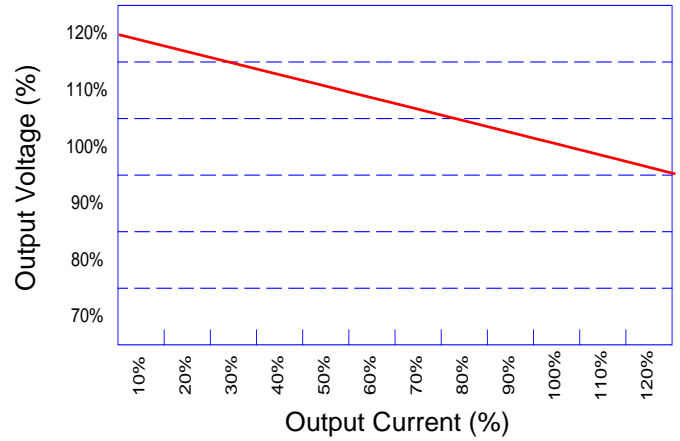
RECOMMENDED TEST CIRCUIT



DERATING CURVE

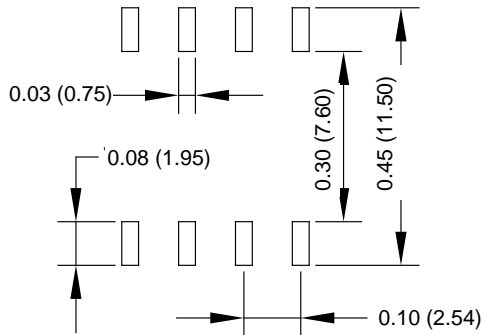
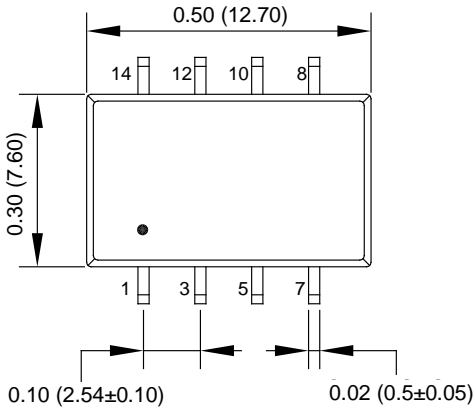


TOLERANCE ENVELOPE GRAPH



MECHANICAL DRAWING

Unit: inches (mm)



PIN CONNECTIONS	
PIN	SINGLE OUTPUT
1	-Vin
3	+Vin
7	-Vout
8	+Vout
Others	NC

Tolerance: ±0.25

SUGGESTED PAD LAYOUT

