

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



Wall Industries, Inc.

Rev A

AMI Series
Single Output
Surface Mount Package
1 Watt DC/DC Converter

MODEL SELECTION GUIDE

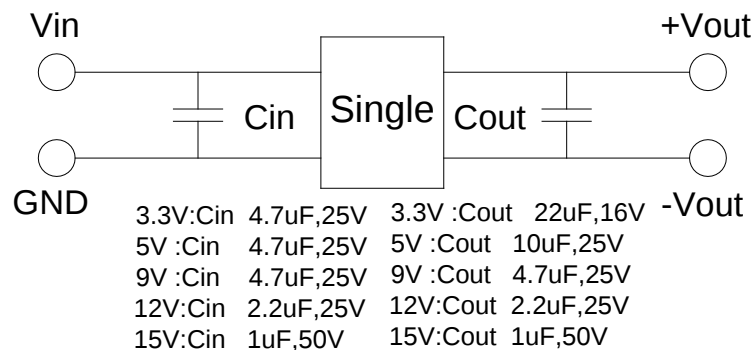
Model Number	Input Voltage Range	Output Voltage	Output Current	Output Power
AM3333-303NI	3.3 VDC (2.97 – 3.63 VDC)	3.3 VDC	303mA	1W
AM3305-200NI		5 VDC	200mA	1W
AM3309-111NI		9 VDC	111mA	1W
AM3312-83NI		12 VDC	83mA	1W
AM3315-66NI		15 VDC	66mA	1W
AM533-303NI	5 VDC (4.5 – 5.5 VDC)	3.3 VDC	303mA	1W
AM505-200NI		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

TESTING 12345678910

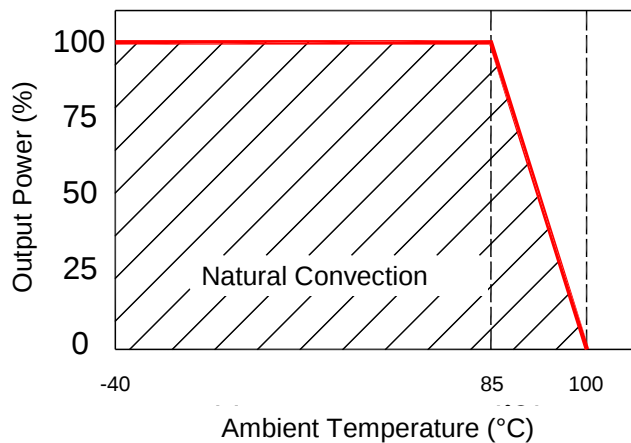
NOTES

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

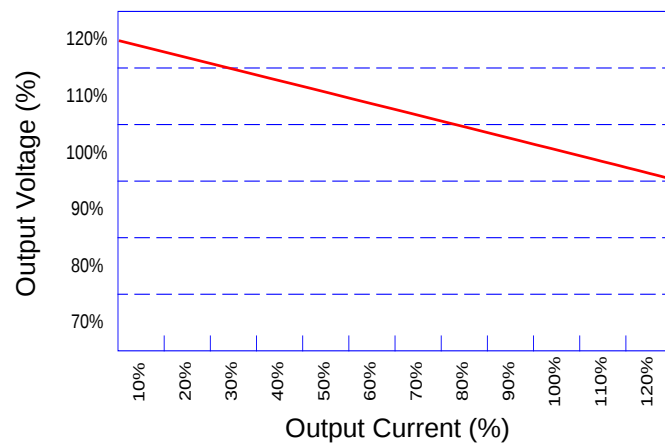
RECOMMENDED TEST CIRCUIT



DERATING CURVE

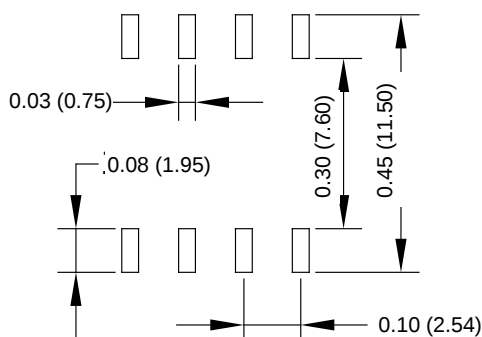
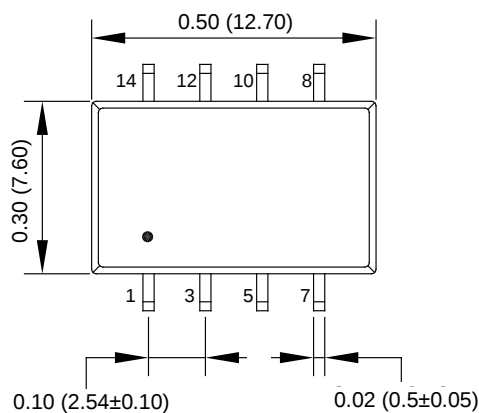


TOLERANCE ENVELOPE GRAPH



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

