



Size: 0.5in x 0.30in x 0.25in
(12.7 x 7.6 x 6.25mm)

FEATURES

- SMT Package
- 1,000VDC Isolation
- MTBF > 1 Million Hours
- Efficiency up to 80%
- RoHS Compliant
- Small Footprint
- High Power Density
- Industry Standard Pinout
- Cooling by Free Air Convection
- Short Circuit Protection

APPLICATIONS

- High Speed Pick Machine Operation
- Place Machine Operation
- Low Power Applications

DESCRIPTION

The AM series of DC DC converters provides up to 1 watt of output power in a compact 0.5" x 0.30" x 0.25" frame. This series consists of single output models with outputs ranging from 3.3~15VDC. Each model has high power density as well as industry standard pinout. This series is useful in high speed pick and place machine operation and other low power applications. Models are RoHS compliant and have high efficiency up to 80%.

MODEL SELECTION TABLE

Model Number	Input Voltage	Output Voltage	Output Current	Ripple & Noise	Output Power	Load Regulation ⁽¹⁾	Efficiency
AM503-303N	5VDC (4.5-5.5VDC)	3.3VDC	303mA	100mVp-p	1W	15% Typ.	65%
AM505-200N	5VDC (4.5-5.5VDC)	5VDC	200mA			15% Max.	70%
AM509-110N	5VDC (4.5-5.5VDC)	9VDC	110mA			9% Max.	75%
AM512-84N	5VDC (4.5-5.5VDC)	12VDC	84mA			7.5% Max.	78%
AM515-67N	5VDC (4.5-5.5VDC)	15VDC	67mA			7% Max.	80%
AM1203-303N	12VDC (10.8~13.2VDC)	3.3VDC	303mA	100mVp-p	1W	15% Typ.	65%
AM1205-200N	12VDC (10.8~13.2VDC)	5VDC	200mA			15% Max.	70%
AM1209-110N	12VDC (10.8~13.2VDC)	9VDC	110mA			9% Max.	75%
AM1212-84N	12VDC (10.8~13.2VDC)	12VDC	84mA			7.5% Max.	78%
AM1215-67N	12VDC (10.8~13.2VDC)	15VDC	67mA			7% Max.	80%

SPECIFICATIONS

All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
INPUT SPECIFICATIONS					
Input Voltage Range		5		12	VDC
Input Filter		Capacitor			
OUTPUT SPECIFICATIONS					
Output Voltage		See Table			
Voltage Tolerance				±5	%
Line Regulation	For 1% of Vin		1.2		%
Load Regulation		See Table			
Output Power		See Table			
Output Current		See Table			
Ripple & Noise	DC to 20MHz Bandwidth			100	mVp-p
Transient Response Setting Time	50% load step change		350		us
PROTECTION					
Short Circuit Protection	Short Term			1	Sec.
ENVIRONMENTAL SPECIFICATIONS					
Operating Case Temperature		-40		+85	°C
Humidity	Non-Condensing			95	%
Cooling		Free Air Convection			
MTBF			3500000		Hours

SPECIFICATIONS

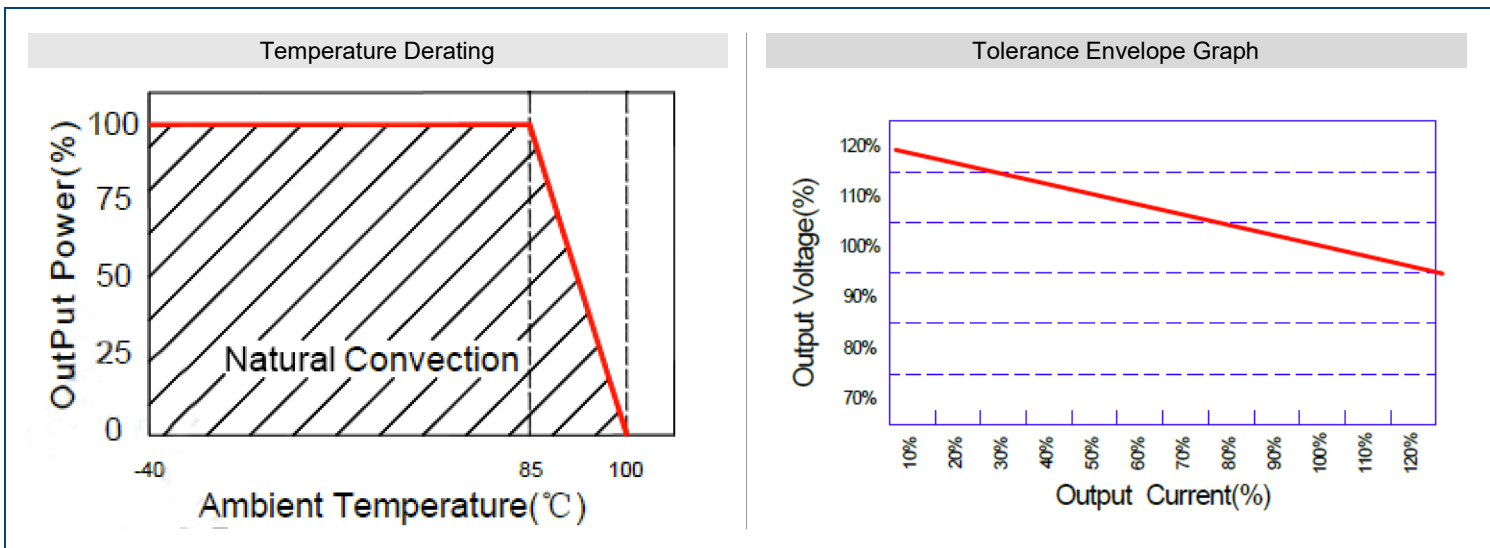
All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.
We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
GENERAL SPECIFICATIONS					
Efficiency		See Table			
Switching Frequency	Full Load, Nominal Input		100		KHz
Isolation Resistance	500VDC	1000			MΩ
PHYSICAL SPECIFICATIONS					
Weight		0.04oz (1g) Typ.			
Dimensions (L x W x H)		0.5in x 0.3in x 0.25in (12.7mm x 7.6mm x 6.25mm)			
Case Material		DAP			

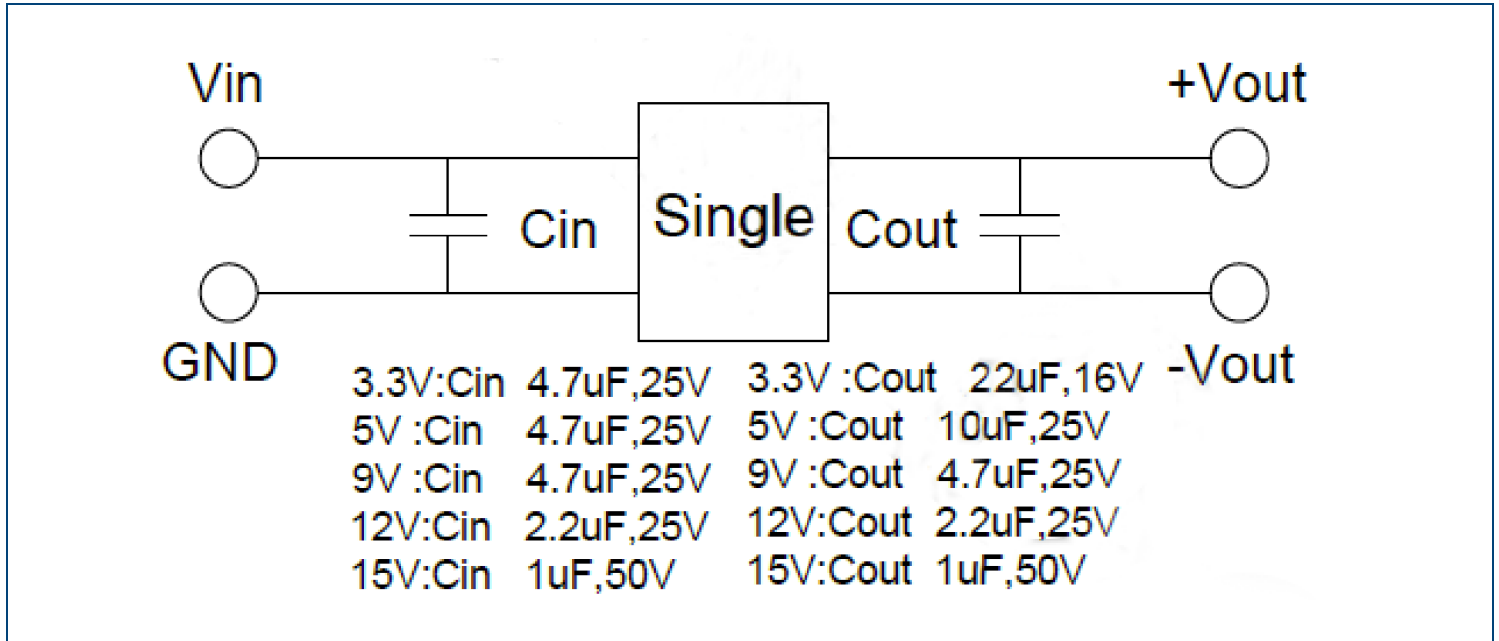
NOTES

(1) Load regulation measured 10%-100% F.L.
Due to advances in technology, specifications are subject to change without notice.

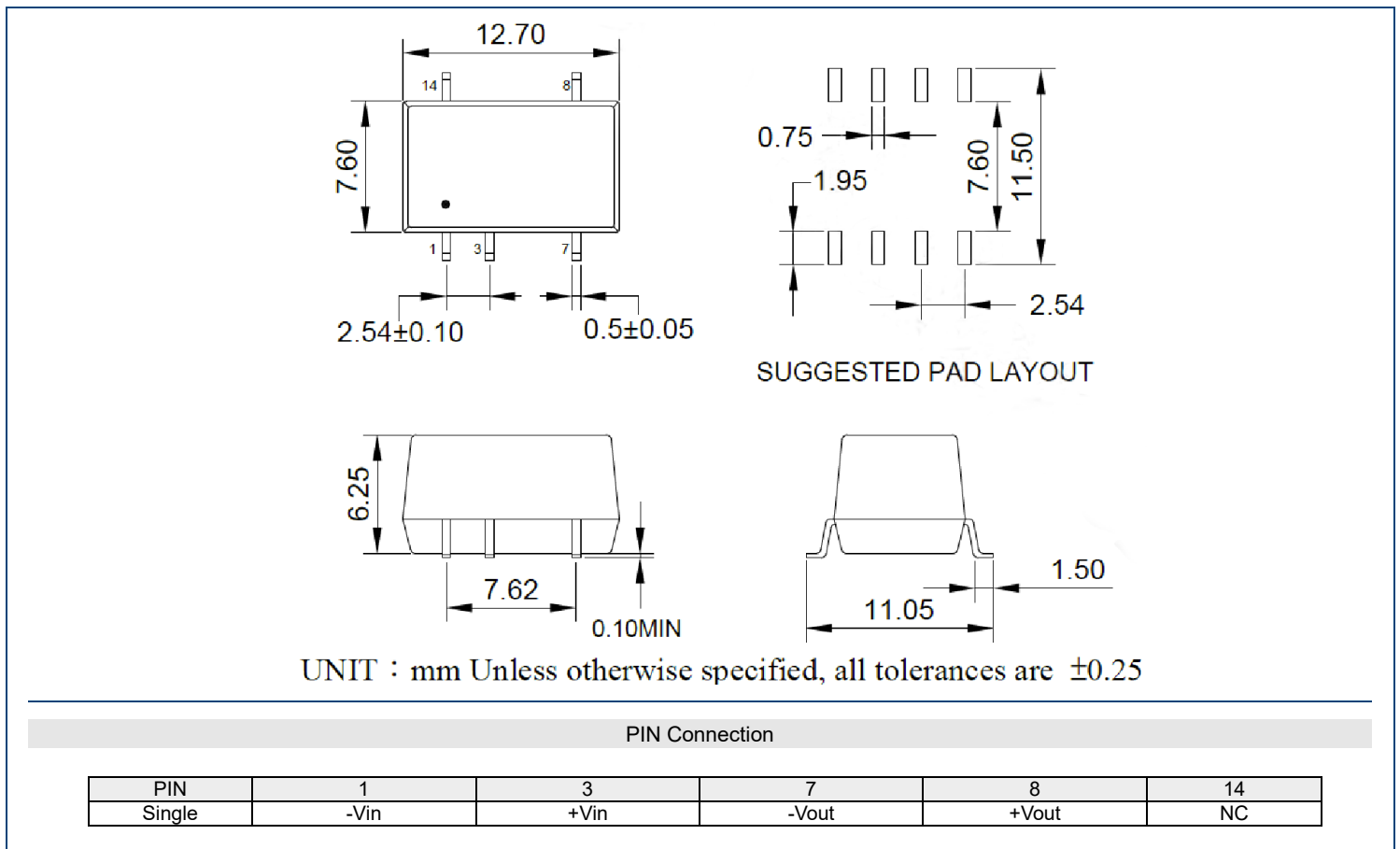
DERATING CURVES



RECOMMENDED TEST CIRCUIT



MECHANICAL DRAWINGS



COMPANY INFORMATION

Wall Industries, Inc. has created custom and modified units for over 50 years. Our in-house research and development engineers will provide a solution that exceeds your performance requirements on-time and on budget. Our ISO9001 certification is just one example of our commitment to producing a high quality, well-documented product for our customers.

Our past projects demonstrate our commitment to you, our customer. Wall Industries, Inc. has a reputation for working closely with its customers to ensure each solution meets or exceeds form, fit and function requirements. We will continue to provide ongoing support for your project above and beyond the design and production phases. Give us a call today to discuss your future projects.

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