



FEATURES:

- RoHS Compliant
- 3 Pin SIP Package
- Non-Isolated
- Low ripple and noise
- Operating temperature -40°C to +85°C
- Very high efficiency up to 96%
- Pin compatible to multiple manufacturers
- Regulated Outputs

Models
Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Efficiency Vin Min (%)	Efficiency Vin Max (%)
AMSR-783.3-NZ	4.75-28	3.3	500	90	80
AMSR-7805-NZ	6.5-32	5	500	93	84
AMSR-786.5-NZ	8-32	6.5	500	94	87
AMSR-7809-NZ	11-32	9	500	95	91
AMSR-7812-NZ	15-32	12	500	95	92
AMSR-7815-NZ	18-32	15	500	96	93

Input Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage range		4.75-32		
Filter	Capacitor			
Quiescent Current	Vin=(LL-HL) at 0% load		7	Ma
Short Circuit consumption			0.8	W

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	100% load		±3	%
Short Circuit protection	Continuous	Auto recovery		
Output current limit			2	A
Thermal shutdown	Internal IC junction	150		°C
Dynamic load stability	10-100% load		±100	mV
Line voltage regulation	Vin=(LL-HL) at full load		±0.4	%
Load voltage regulation	10-100% load		±0.6	%
Temperature coefficient	-40°C to +85°C ambient		±0.02	%/°C
Ripple & Noise	20MHz Bandwidth		35	mV p-p

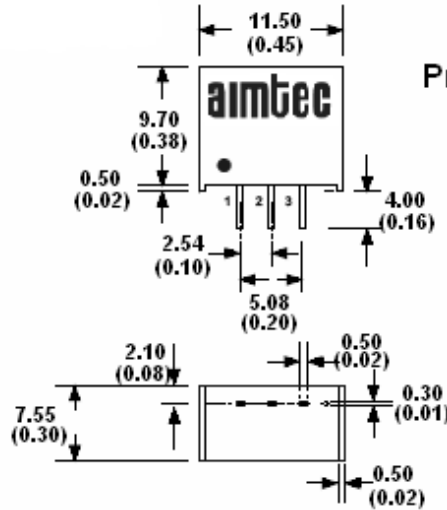
General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	330		KHz
Operating temperature	With derating above 71 °C	-40 to +85		°C
Storage temperature		-55 to +125		°C
Case temperature			100	°C
Cooling	Free air convection			
Humidity			95	%
Case material	Non-conductive black plastic (UL94V-0 rated)			
Weight		2		g
Dimensions (L x H x W)		0.45 x 0.4 x 0.3 inches	11.5 x 10.2 x 7.55 mm	
MTBF	> 2 000 000 hrs (MIL-HDBK-217F, Ground Benign, t=+25 °C)			

Pin Out Specifications

Pin	Single
1	+V Input
2	Ground
3	+V Output

Dimensions



Printed side

Note:

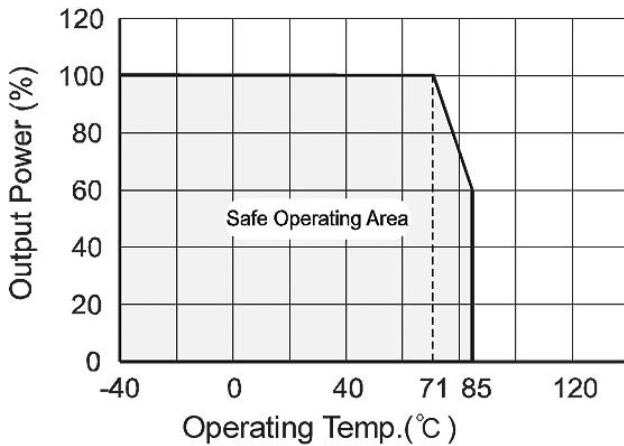
Measuring units: mm(inches)

Pin tolerance: $\pm 0.10\text{mm}(0.004\text{inches})$

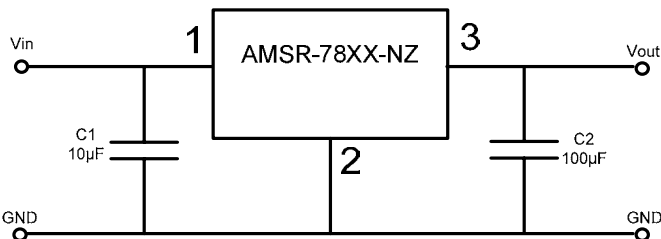
Case tolerance: $\pm 0.25\text{mm}(0.01\text{inches})$

Derating

Temperature Derating Graph



Standard Application Circuit



C1: A low ESR capacitor is required to keep the noise at the converter to a minimum. Ceramic capacitors are preferred, but tantalum or low ESR electrolytic capacitor will suffice. Generally used is a 10µF/50V ceramic

C2: Optional generally used is a 100µF/25V electrolytic capacitor

NOTE: No parallel connection or plug and play