



FEATURES:

- 3 Pin SIP package
- Very high efficiency up to 95%
- Non Isolated
- Low Ripple and Noise
- High voltage input range up to 72V
- Operating temperature -40°C to +85°C
- Pin Compatible with multiple manufacturers
- Continuous Short Circuit Protection

Models Single output



Model	Input Voltage (V)	Output Voltage (V)	Output Current max (mA)	Max Capacitive Load (uF)	Efficiency Vin Min (%)	Efficiency Vin Max (%)
AMSRW-783.3Z	9-72	3.3	500	100	82	75
AMSRW-7805Z	9-72	5	500	100	88	80
AMSRW-786.5Z	9-72	6.5	500	100	91	83
AMSRW-787.2Z	14-72	7.2	500	100	91	84
AMSRW-7809Z	14-72	9	500	100	92	86
AMSRW-7812Z	17-72	12	500	100	94	89
AMSRW-7815Z	20-72	15	500	100	95	89

Input Specifications

Parameters	Nominal	Typical	Maximum	Units
Voltage range	See table above			
Filter	Capacitor			
No Load Input Current	$V_{in} = (LL - HL)$ at 0% load		0.3	mA
Input reflected ripple current*	Full Load		35	mA p-p
Absolute Maximum Rating		75		VDC
Peak Input Voltage Time		100		ms

* The input reflected ripple current should be measured with a 12 μ H inductor.

Output Specifications

Parameters	Conditions	Typical	Maximum	Units
Voltage accuracy	100% Load		± 3	%
Short Circuit protection	Continuous			
Short circuit restart	Auto recovery			
Line voltage regulation	$V_{in} = (LL - HL)$ at full load		± 1	% of V_{in}
Load voltage regulation	From 10% to 100% Load		± 1	%
Temperature coefficient		± 0.02		%/°C
Ripple & Noise	20MHz Bandwidth, 10% to 100% Load		75	mV p-p

General Specifications

Parameters	Conditions	Typical	Maximum	Units
Switching frequency	100% load	120 to 800		KHz
Operating temperature	Derating above 60°C	-40 to +85		°C
Storage temperature		-40 to +125		°C
Maximum case temperature			100	°C
Cooling	Free air convection			
Humidity		95		% RH
Case material	Non-Conductive Black Plastic(UL94V-0 rated)			
Weight		2		g
Dimensions (L x W x H)	0.46 x 0.29 x 0.40 inches	11.68 x 7.50 x 10.16 mm		
MTBF	>4 500 000 hours (MIL-HDBK-217F, Ground Benign, t=+25°C)			
Maximum soldering temperature		260		°C

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.

Safety Specifications

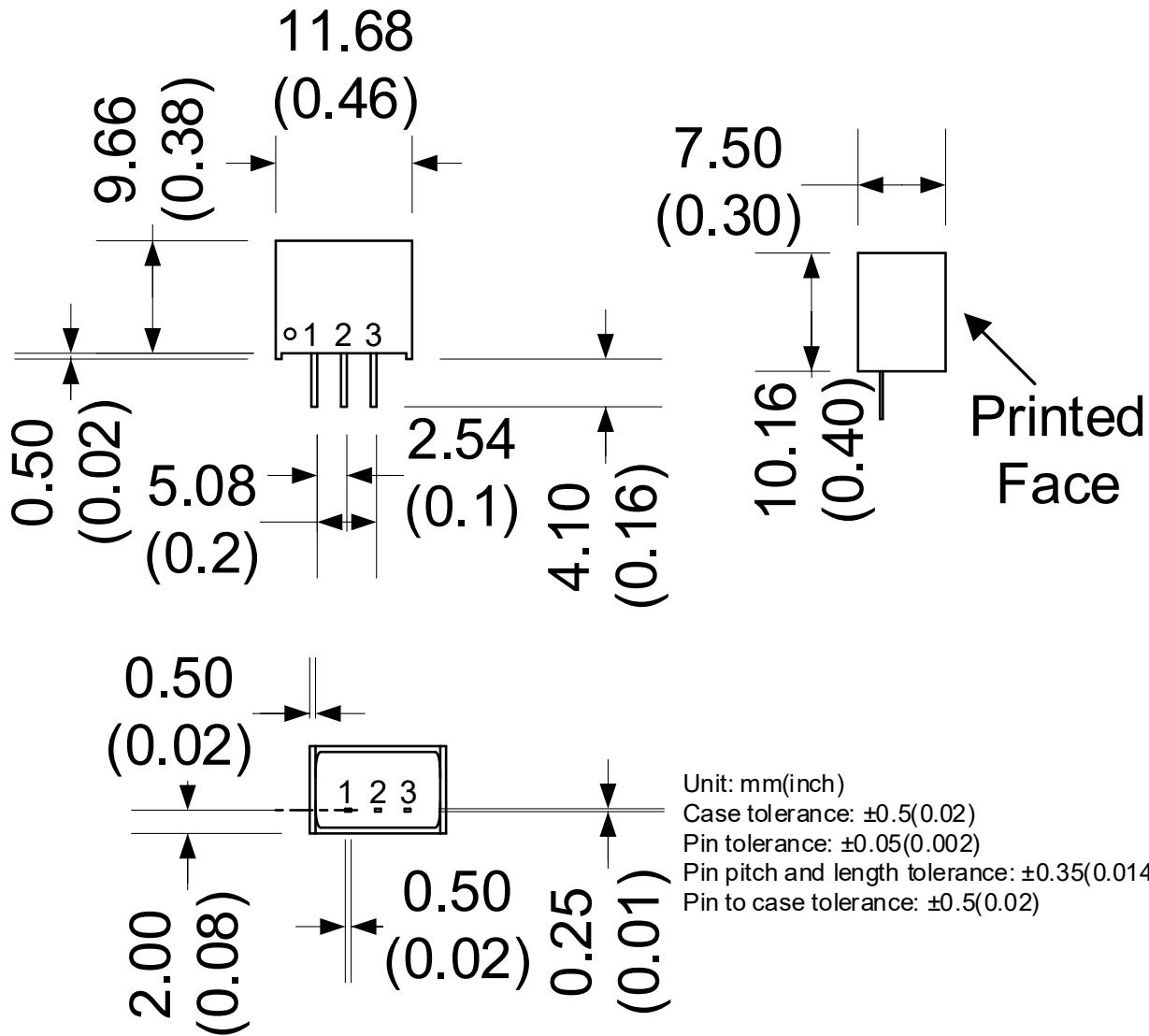
Parameters

Agency Approvals	CE EN 55032 class B, with the recommended circuit
Standards	IEC 61000-4-2, Perf. Criteria A, with the recommended circuit
	IEC 61000-4-3, Perf. Criteria A, with the recommended circuit
	IEC 61000-4-4, Perf. Criteria A, with the recommended circuit
	IEC 61000-4-5, Perf. Criteria A, with the recommended circuit
	IEC 61000-4-6, Perf. Criteria A, with the recommended circuit
	IEC 61000-4-8, Perf. Criteria A, with the recommended circuit

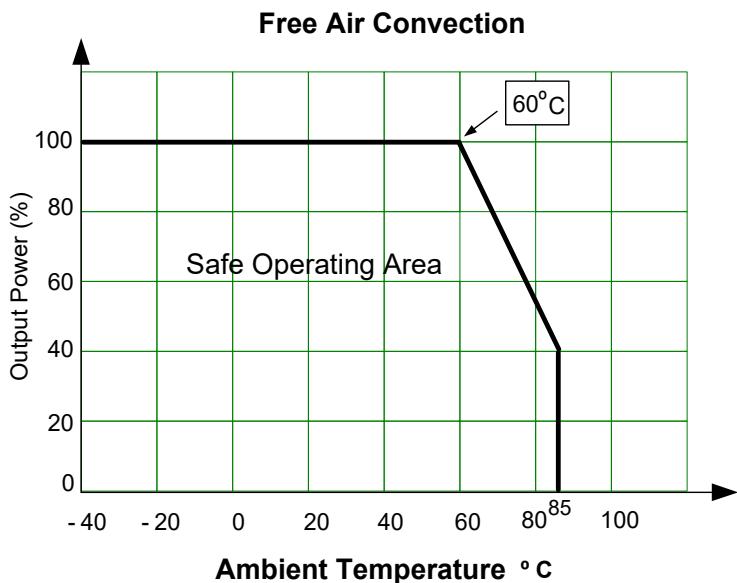
Pin Out Specifications

Pin	Single
1	+V input
2	GND
3	+V output

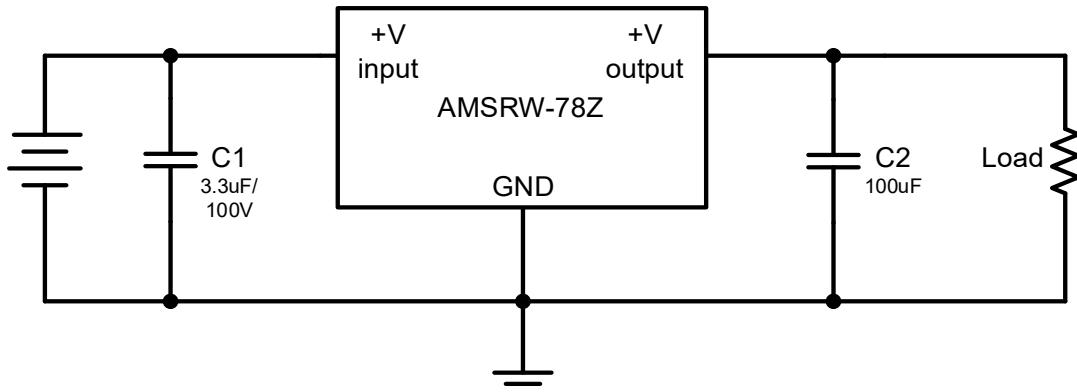
Dimensions



Derating

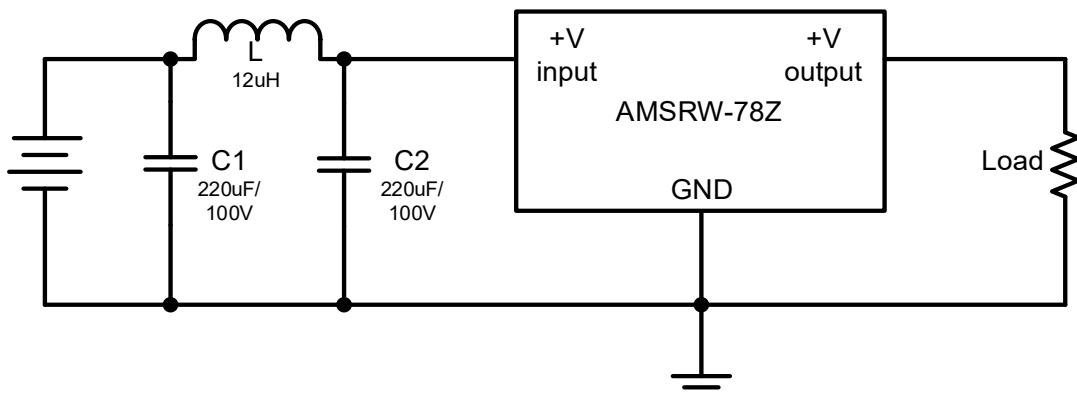


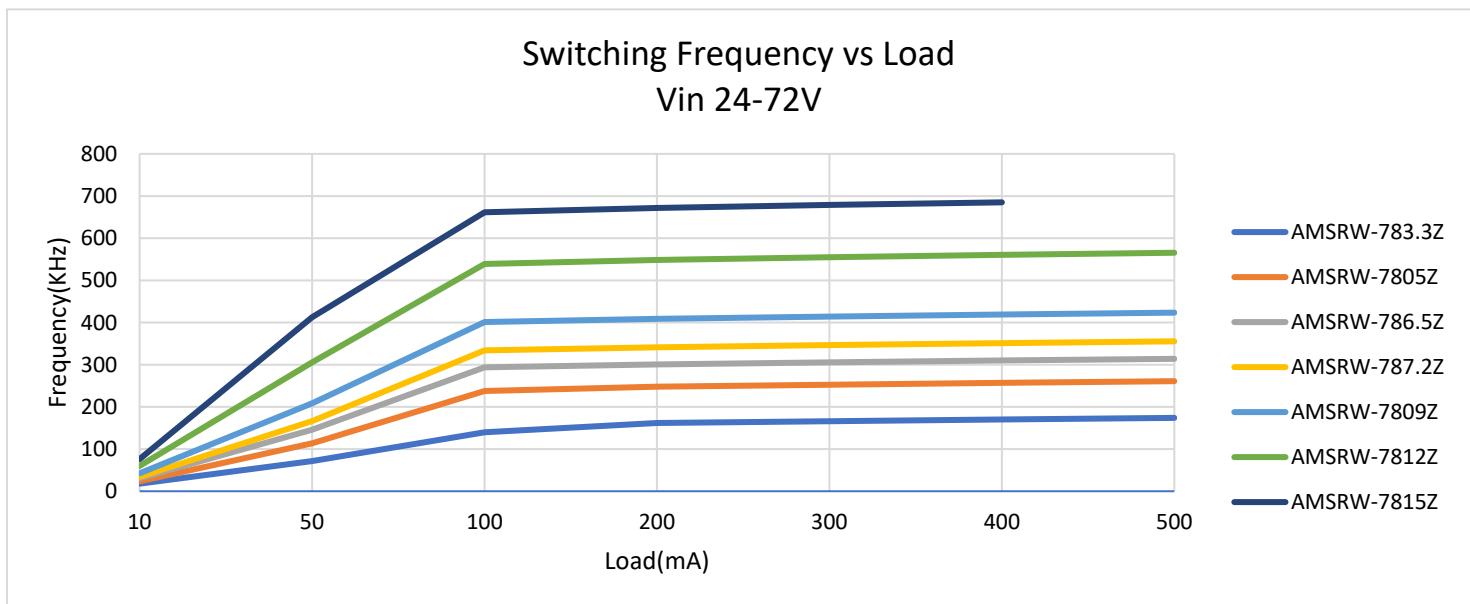
Typical application circuit



C1 is required if Vin>50V

Recommended EMI/EMS circuit





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