



FEATURES:

- 3 Pin Stp Package
- Pin-Out Compatible With LM78XX Linear Regulators
- Continuous Short Circuit Protection
- Non-Isolated Regulated Output
- Operating Temperature -40°C To +85°C
- Wide Input Range
- Very High Efficiency Up To 93%
- Low Ripple And Noise



Models
Single output

Model	Input Voltage (V)	Output Voltage (V)	Output Current max (A)	Efficiency Vin Max (%)	Efficiency Vin Min (%)
AMSR1.5-7805-NZ	6.5-18	5	1.5	91	93

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.

- **Model AMSR1.5-7805-NZ will be discontinued by December 30, 2020 (EOL date); for new designs, please refer to model AMSR2-7805JZ.**

Input Specifications

Input Specifications	Nominal	Typical	Maximum	Units
Voltage range	See the table above			VDC
Filter	Capacitor			
Quiescent Current	Vin=(LL-HL) at full load	5	10	mA
Short Circuit consumption		0.5	1.8	W

Output Specifications

Output Specifications	Conditions	Typical	Maximum	Units
Voltage accuracy	100% load	±3		%
Short Circuit protection	Continuous.			
Short circuit restart	Auto recovery			
Output current limit			5	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	±0.75		%
Load voltage regulation	10-100% load	±1		%
Temperature coefficient	-40°C to +85°C ambient	±0.02		%/°C
Ripple & Noise	20MHz Bandwidth	45		mV p-p
Maximum Capacitive Load			1000	µF

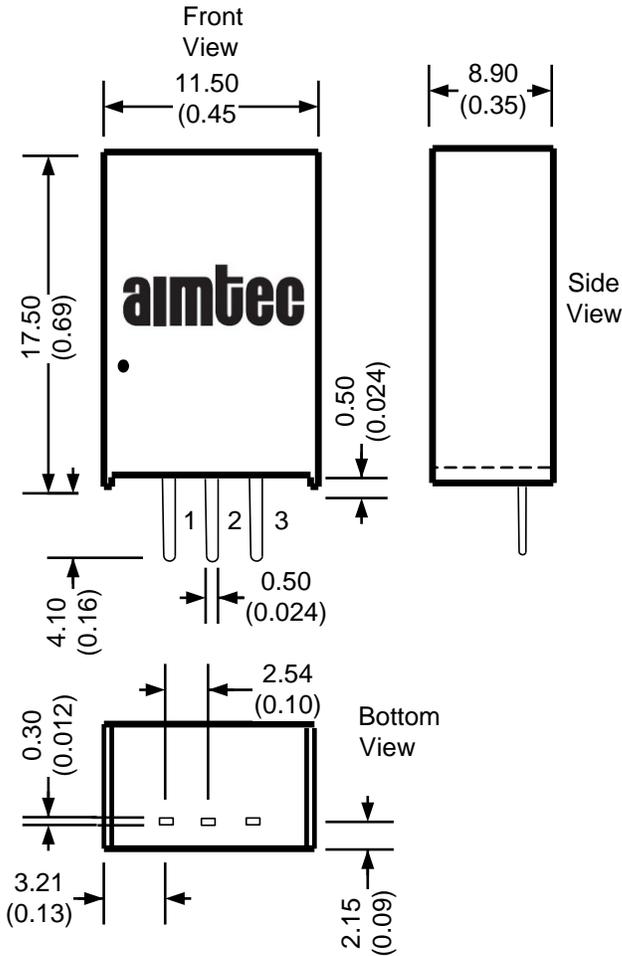
General Specifications

Input Specifications	Conditions	Typical	Maximum	Units
Switching frequency	100% load	340		KHz
Operating temperature	With derating above 71°C	-40 to +85		°C
Storage temperature		-55 to +125		°C
Max Case temperature			100	°C
Cooling	Free air convection			
Humidity			95	%
Case material	Non-conductive black plastic (UL94-V0 rated)			
Weight		4		g
Dimensions (L x W x H)	0.45 X 0.35 X 0.69 inch	11.50 X 8.90 X 17.50 mm		
MTBF	> 2 000 000 hrs (MIL-HDBK-217F, Ground Benign, t=+25°C)			
Soldering Temperature	1.5 mm from case for 10 sec		300	°C

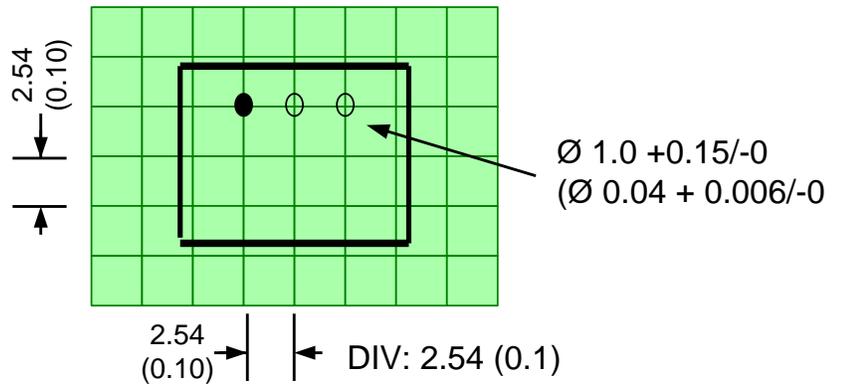
Pin Out Specifications

Pin	Single
1	+Vin
2	GND
3	+Vout

Dimensions



Footprint

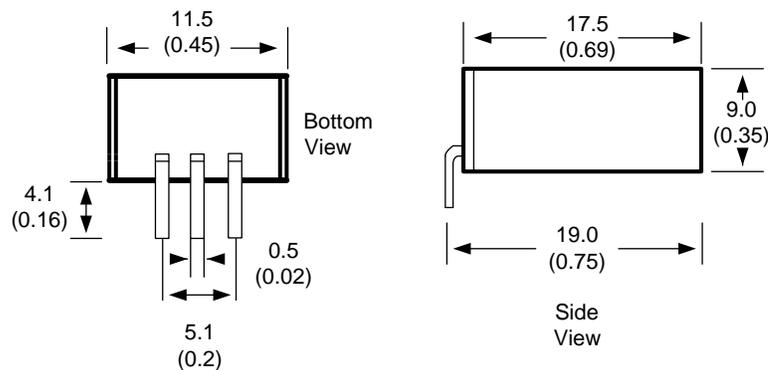


Dimensions are typical values: mm (inch)

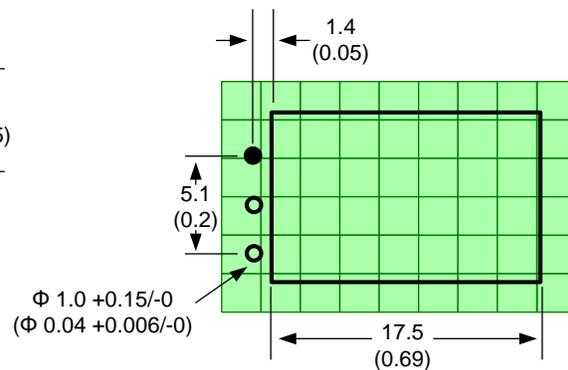
General Tolerance: ± 0.25 (± 0.01)

Pin Tolerance: ± 0.1 (± 0.004)

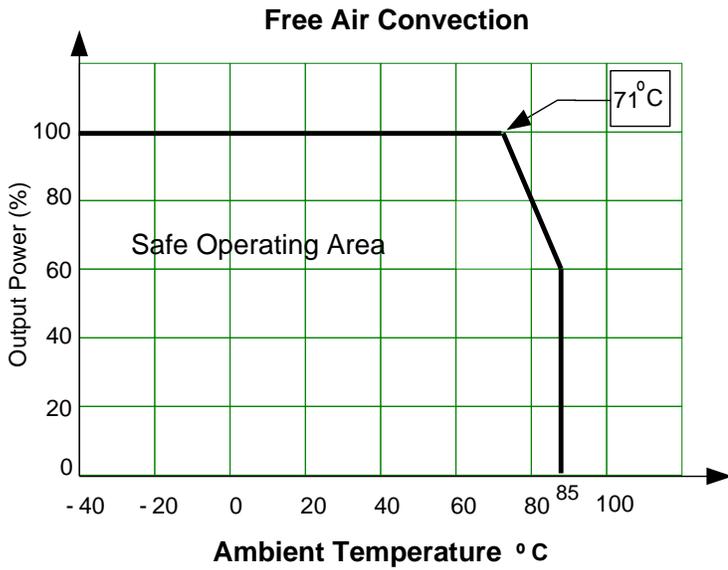
L Models



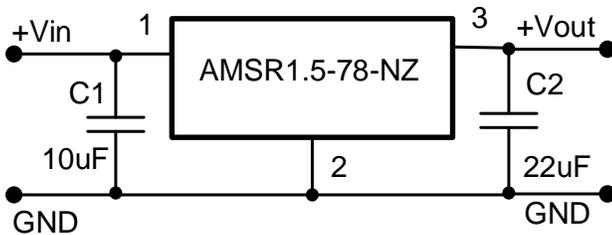
Footprint



Derating



Typical Application Circuits

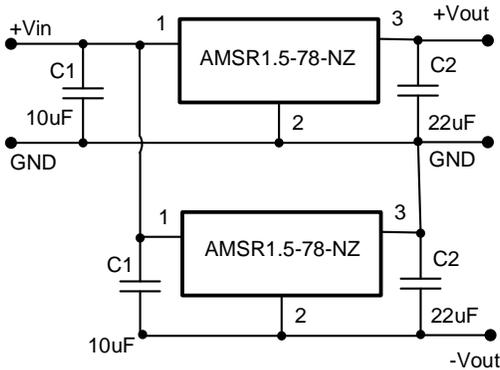


C1: A low ESR capacitor is required to keep the noise of the converter to a minimum. Ceramic capacitors are recommended with typical value is 10µF / 25V.

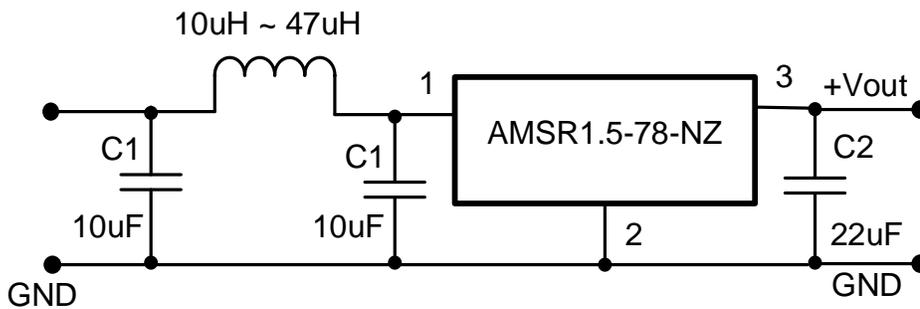
C2: Installation of C2 is recommended with typical value of 22µF / 16V ceramic for 5V.

NOTE: This part is not designed for parallel operation.

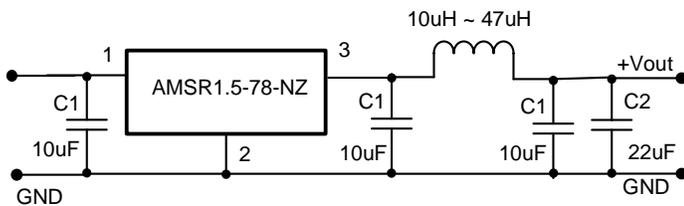
Dual Output Connection



Input Filter



Output Filter



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