

## 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 Max (%) | Efficiency Vin Min (%) |
|---------------|-------------------|--------------------|-------------------------|------------------------|------------------------|
| 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             | See the table above    |         |         | VDC   |
| 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               |         |         |        |
| Short circuit restart    | 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 |
| Maximum capacitive load  |                          |         | 1000    | uF     |

## 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    |
| Max 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 W x H) | 0.45 x 0.30 x 0.40 inches 11.50 x 7.60 x 10.20 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    |

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.