



FEATURES 5V Inputs

- Delivers 1.5A of Output Current
- High Efficiency
- Single-in-Line SIP Package
- Small Size / Low Profile
- Low Output Ripple / Noise
- Cost-Efficient Open Frame Design
- High Quality EMI Characteristic
- Compatible with TO-220 Package Pin Out
- High Frequency Switching (Typ. 1.3MHz)
- UVLO (Typ. 3.7V_{in})
- Over Current Protection (OCP)
- Over Temperature Protection (OTP)
- 3 Year Warranty

ELECTRICAL SPECIFICATIONS

78NS1R5A - 5 Packages

• Input Range	DC 5V(4.5 - 5.5)
• Efficiency	65 - 85%
• Output Voltages	1.0 - 3.3V
• Output Voltage Tolerance	±3.0%
• Line Regulation	±0.2% Max.
• Load Regulation	±2.0% Max. (Input from 0A to 1.5A)
• Switching Frequency	Typ. 1.3MHz (Min. 1.0MHz, Max. 1.6MHz)
• * Ripple and Noise	20mVp-p (@3.3V)

ENVIRONMENTAL

• Operating Temperature Range	-40°C ~ 85°C
• Storage Temperature Range	-40°C ~ 85°C
• Lead Temperature (Soldering , 10sec)	+300°C
• Thermal ShUTDOWN	Convection, Forced Air
• MTBF (MIL-HDBK-217F)	4.0 x 10 ⁶ hrs

* Ripple & Noise is tested / Specified over a 20MHz bandwidth and may be reduced with external filtering.

ORDERING INFORMATION

Input	Output	Maximum Power	Ripple & Noise Max.	Efficiency Typ.	Model Number
4.5 - 5.5V	1.0V@1.50A	1.50W	20mVp-p	65%	78NS1R5A-5-1R0V
4.5 - 5.5V	1.2V@1.50A	1.80W	20mVp-p	69%	78NS1R5A-5-1R2V
4.5 - 5.5V	1.5V@1.50A	2.25W	20mVp-p	72%	78NS1R5A-5-1R5V
4.5 - 5.5V	1.8V@1.50A	2.70W	20mVp-p	76%	78NS1R5A-5-1R8V
4.5 - 5.5V	2.0V@1.50A	3.00W	20mVp-p	77%	78NS1R5A-5-2R0V
4.5 - 5.5V	2.5V@1.50A	3.75W	20mVp-p	81%	78NS1R5A-5-2R5V
4.5 - 5.5V	3.3V@1.50A	4.95W	20mVp-p	85%	78NS1R5A-5-3R3V

V : SIP package

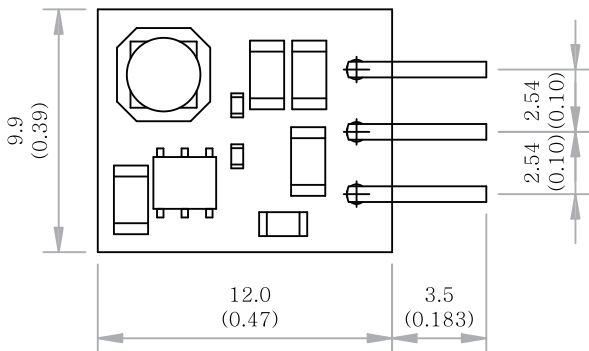
1. Typical at Ta = +25°C under nominal line voltage and full load conditions, unless otherwise noted. All models are tested and specified with external input and output capacitors. (Cin=100uF X 2 Cout = 10uF), These capacitors are necessary to accommodate our test equipment.
2. Ripple & Noise is tested / specified over a 20MHz bandwidth and may be reduced with external filtering. See I/O Filtering.
3. These device have no minimum-load requirement and will regulate under no-load conditions. Regulation specification describe the output voltage deviation as the line voltage or load is varied from its minimum value to either extreme.

PIN ASSIGNMENTS

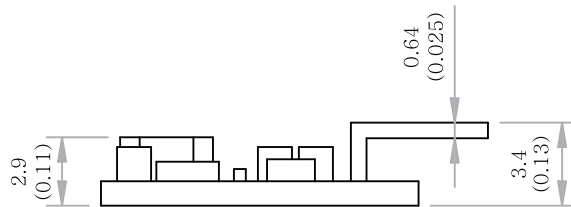
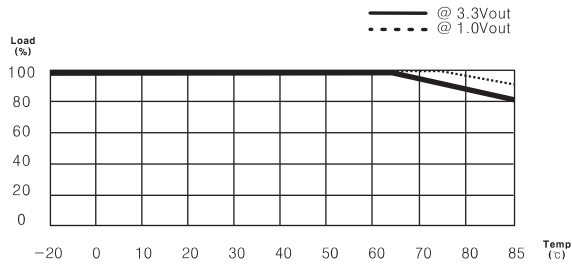
Single Output (SIP)

1. +Vin
2. COM
3. +Vout

DIMENSIONS



DERATING CURVE



NOTE 1 All dimension are in mm (inches)
2 Weight : 0.58g or less