78NS3A Series

4-TERMINAL NON-ISOLATED DC-DC CONVERTER

FEATURES 12V Inputs

- Delivers 3A of Output Current
- High Efficiency
- Single-In-Line SIP Package
- Small Size / Low Profile
- Low Output Ripple / Noise
- Short Circuit Protection
- Remote On/Off Control (CNT)
- Cost-Efficient Open Frame Design
- Compatible with TO-220 Package Pin Out
- High Frequency Switching (Typ. 600kHz)
- UVLO (Typ. 4.3Vin)
- Over Current Protection (OCP)
- Over Temperature Protection (OTP)
- 3 Year Warranty

RoHS

ELECTRICAL SPECIFICATIONS

78NS3A - 12 Packages

· Input Range	DC 12V(6.5 - 18) @3.3V, 12V(10 - 18) @5.0V
· Efficiency	89 - 92%
· Remoto On/Off Control	On : Open 1.2V to 2V Off : 0 to 1.1V
· Output Voltages	3.3V, 5.5V
· Output Voltage Tolerance	±3.0%
· Line Regulation	±0.2% Max.
· Load Regulation	±1.0% Max. (Input form 0A to 3A)
· Switching Frequency	Typ. 600KHz (Min. 540KHz, Max. 660KHz)
· * Ripple and Noise	40mVp-p (@3.3V), 60mVp-p (@5.0V)

ENVIRONMENTAL

· Operating Temperature Range	-40℃ ~ 85℃
· Storage Temperature Range	-40℃ ~105℃
· Lead Temperature (Soldering , 10sec)	+300℃
· Thermal Shuntdown	Convection, Forced Air
· MTBF (MIL-HDBK-217F)	1.14×10^{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
6.5 - 18V	3.3V@3.00A	9.90W	40mVp-p	89%	**78NS3A-12-3R3V**
10 - 18V	5.0V@3.00A	15.00W	60mVp-p	92%	**78NS3A-12-5R0V**

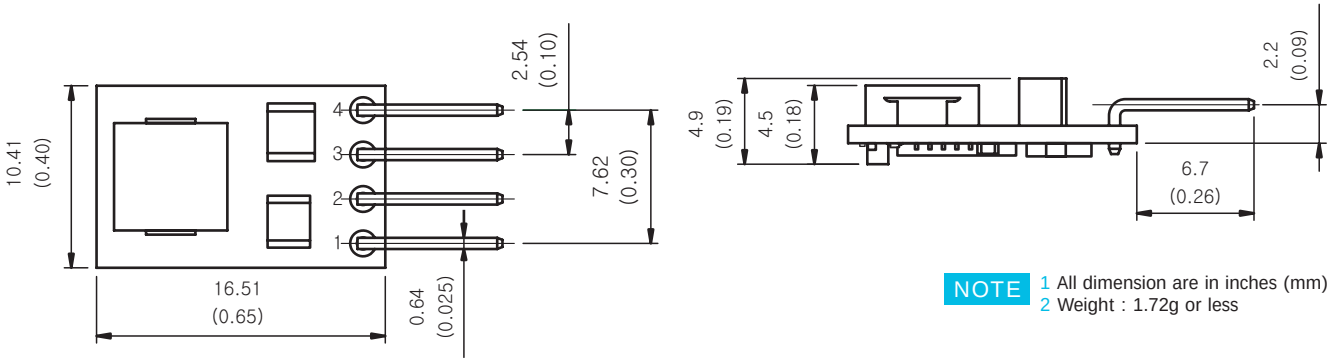
1. Typical at Ta = +25℃ under nominal line voltage and full load conditions, unless otherwise noted. All models are tested and specified with external input and output capacitors. (Cin=100uF X 2 Cout = 10uF), These capacitors are necessary to accommodate our test equipment.
2. Ripple & Noise is tested / 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. CNT
2. +Vin
3. COM
4. +Vout

DIMENSIONS



NOTE
1 All dimension are in inches (mm)
2 Weight : 1.72g or less