

1 Watt**8 Pin****SMD-Package N
LEADFREE**

- o Ultra-Miniature Size
- o Unregulated Output
- o 1000 VDC I/O-Isolation
- o 3000 VDC I/O-Isolation add Suffix "H3" (not valid for „P8“)
- o For 8 Pin SMD-Package add Suffix "P8"
- o EN60950 and EN60601 compliant

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	%EFF MIN.
1NUS3.3N3.3E LEADFREE	3.3 VDC	3.3 VDC	303 mA	75
1NUS3.3N5E LEADFREE		5 VDC	200 mA	72
1NUS3.3N9E LEADFREE		9 VDC	111 mA	74
1NUS3.3N12E LEADFREE		12 VDC	84 mA	75
1NUS3.3N15E LEADFREE		15 VDC	66 mA	74
1NUS5N3.3E LEADFREE	5 VDC	3.3 VDC	303 mA	75
1NUS5N5E LEADFREE		5 VDC	200 mA	72
1NUS5N9E LEADFREE		9 VDC	111 mA	74
1NUS5N12E LEADFREE		12 VDC	84 mA	75
1NUS5N15E LEADFREE		15 VDC	66 mA	74
1NUS9N3.3E LEADFREE	9 VDC	3.3 VDC	303 mA	75
1NUS9N5E LEADFREE		5 VDC	200 mA	72
1NUS9N9E LEADFREE		9 VDC	111 mA	74
1NUS9N12E LEADFREE		12 VDC	84 mA	75
1NUS9N15E LEADFREE		15 VDC	66 mA	74
1NUS12N3.3E LEADFREE	12 VDC	3.3 VDC	303 mA	75
1NUS12N5E LEADFREE		5 VDC	200 mA	72
1NUS12N9E LEADFREE		9 VDC	111 mA	74
1NUS12N12E LEADFREE		12 VDC	84 mA	75
1NUS12N15E LEADFREE		15 VDC	66 mA	74
1NUS15N3.3E LEADFREE	15 VDC	3.3 VDC	303 mA	75
1NUS15N5E LEADFREE		5 VDC	200 mA	72
1NUS15N9E LEADFREE		9 VDC	111 mA	74
1NUS15N12E LEADFREE		12 VDC	84 mA	75
1NUS15N15E LEADFREE		15 VDC	66 mA	74
1NUS24N3.3E LEADFREE	24 VDC	3.3 VDC	303 mA	75
1NUS24N5E LEADFREE		5 VDC	200 mA	72
1NUS24N9E LEADFREE		9 VDC	111 mA	74
1NUS24N12E LEADFREE		12 VDC	84 mA	75
1NUS24N15E LEADFREE		15 VDC	66 mA	74

NOTE: Add Suffix "R" for Tape and Reel Packing.

SPECIFICATIONS

All Specifications Typical At Nominal Line, Full Load, and 25°C Unless Otherwise Noted

INPUT SPECIFICATIONS

Input Voltage Range	±10 % max.
Input Filter	Capacitor

OUTPUT SPECIFICATIONS

Voltage set Accuracy	-1% typ. ±5% max.						
Ripple and Noise, 20MHz BW	50 mV p-p typ. 100 mV p-p max.						
Short Circuit Protection	1 sec. (optional continuous on request)						
Line Regulation (Low Line to High Line @ max. Load)	1% typ. 1.2% max.						
Load Regulation*	<table border="0"> <tr> <td>3.3V, 5V</td> <td>12% typ. / 15% max.</td> </tr> <tr> <td>9V</td> <td>7% typ. / 10% max.</td> </tr> <tr> <td>12V, 15V</td> <td>6% typ. / 10% max.</td> </tr> </table>	3.3V, 5V	12% typ. / 15% max.	9V	7% typ. / 10% max.	12V, 15V	6% typ. / 10% max.
3.3V, 5V	12% typ. / 15% max.						
9V	7% typ. / 10% max.						
12V, 15V	6% typ. / 10% max.						

*Measured from 10% to 100% Load

GENERAL SPECIFICATION

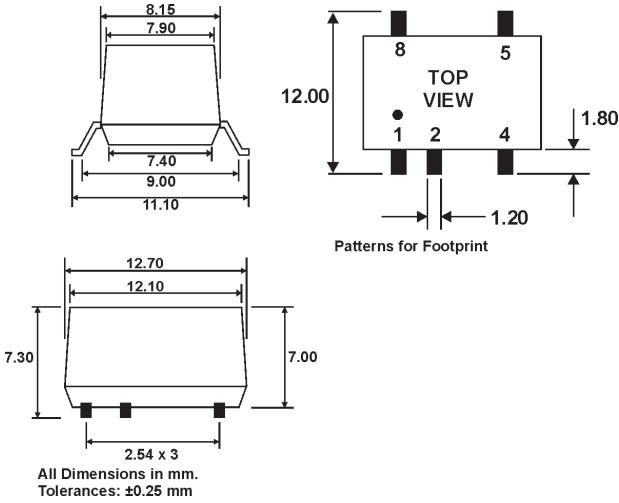
Efficiency	see table				
Isolation Voltage Suffix "H3" (not valid for "P8")	1000 VDC 3000 VDC				
Isolation Resistance	Viso=500V 10 Gohms				
Isolation Capacitance	10 pF min. 75 pF max.				
Switching Frequency	20 kHz min. 50 kHz typ. 100 kHz max.				
Operating Temperature Range	-40°C to +85°C				
Storage Temperature Range	-50°C to +125°C				
Derating	see diagram				
Humidity	95%				
Weight	Single 1.0 gram				
Case Material	DAP WH-9100				
ReFlow Temperature RoHS compliant	+240°C max./10-30 sec.				
ReFlow Soldering: Infra Red / Air Convection	profile see diagram				
MTBF (MIL-HDBK-217F)	<table border="0"> <tr> <td>at 25°C</td> <td>1045000 hrs</td> </tr> <tr> <td>at 85°C</td> <td>183000 hrs</td> </tr> </table>	at 25°C	1045000 hrs	at 85°C	183000 hrs
at 25°C	1045000 hrs				
at 85°C	183000 hrs				

SPECIFICATIONS

All Specifications Typical At Nominal Line, Full Load, and 25°C Unless Otherwise Noted

MECHANICAL SPECIFICATIONS

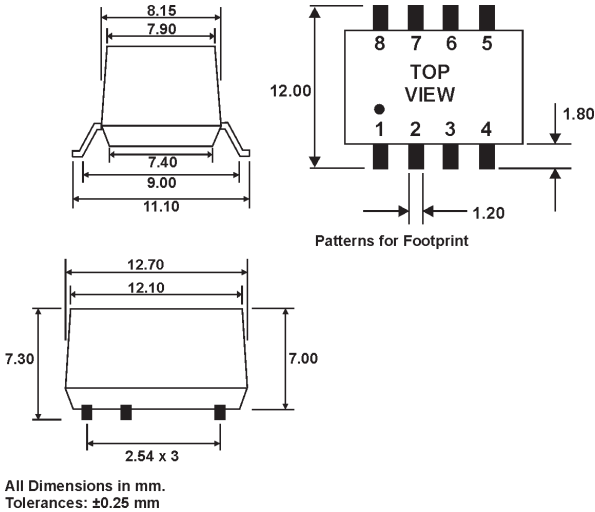
Case "N" - Standard



Standard

PIN CONNECTIONS	
1	-INPUT
2	+INPUT
4	-OUTPUT
5	+OUTPUT
8	NC

Case "N" - Suffix "P8"

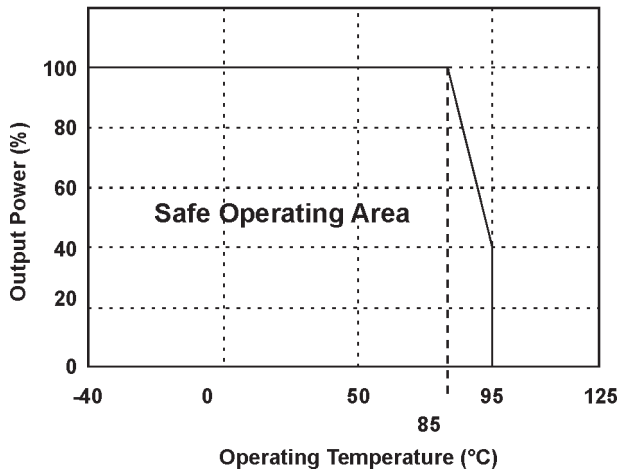


Suffix "P8"

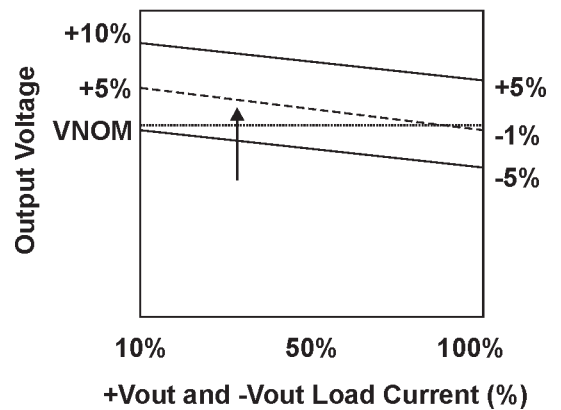
PIN CONNECTIONS	
1	-INPUT
2	+INPUT
4	-OUTPUT
5	+OUTPUT
3 & 6	NC
7 & 8	NC

DIAGRAMS & APPLICATIONS

Derating Curve
(Ambient Temperature)



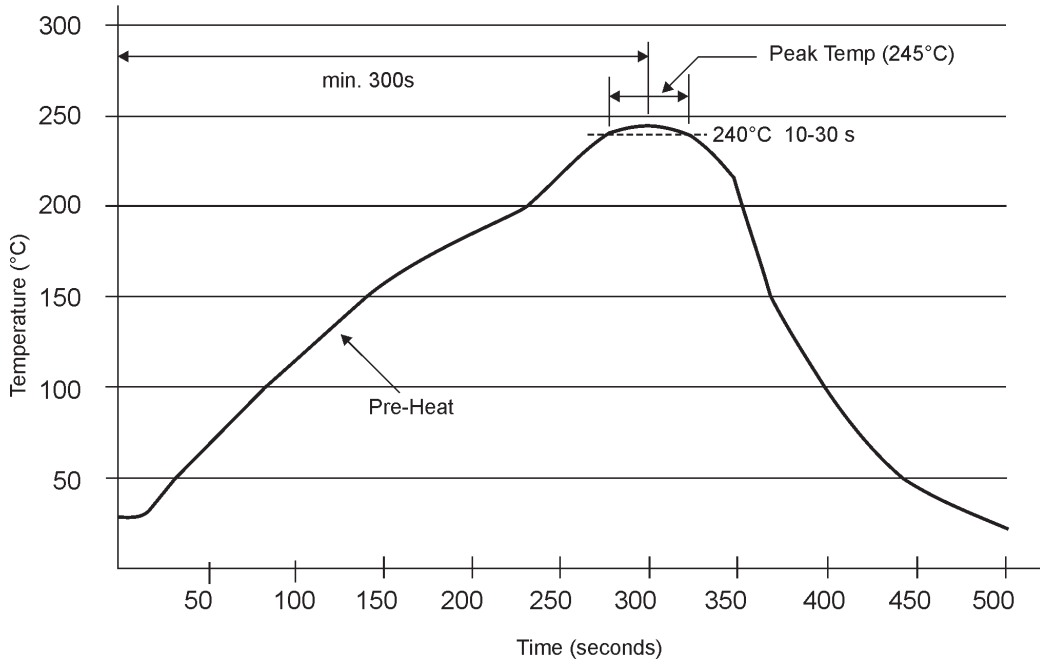
Tolerance Envelopes



SPECIFICATIONS

All Specifications Typical At Nominal Line, Full Load, and 25°C Unless Otherwise Noted

Lead-free Recommended Max. Soldering Profile (SMD-Parts)



Please Notice, that Vapour phase soldering is not recommended!

External Capacitor Table

Single			
Vin	External Capacitor	Vout	External Capacitor
3.3 VDC	22 µF max.	3.3 VDC	33 µF max.
5 VDC	22 µF max.	5 VDC	33 µF max.
12 VDC	10 µF max.	12 VDC	22 µF max.
15 VDC	4.7 µF max.	15 VDC	10 µF max.
24 VDC	2.2 µF max.	-	-

NOTICE:
 The information in this document has been carefully checked. However, no responsibility is assumed for inaccuracies!
 Specifications can be changed without notice. The latest and most complete information can be found on our website.