

3 Watt

24 Pin DIL Package V1
2:1 Input Range



- o Regulated Single Output
- o Efficiency to 88%
- o Very Low Ripple & Noise
- o Low Profile only 7.4 mm



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	%EFF
3V1RS5W3.3E	4.5-9 VDC	3.3 VDC	550 mA	67
3V1RS5W5E		5 VDC	500 mA	72
3V1RS5W9E		9 VDC	300 mA	75
3V1RS5W12E		12 VDC	225 mA	78
3V1RS5W15E		15 VDC	180 mA	80
3V1RS12W3.3E	9-18 VDC	3.3 VDC	650 mA	72
3V1RS12W5E		5 VDC	600 mA	77
3V1RS12W9E		9 VDC	333 mA	80
3V1RS12W12E		12 VDC	250 mA	82
3V1RS12W15E		15 VDC	200 mA	83
3V1RS24W3.3E	18-36 VDC	3.3 VDC	650 mA	77
3V1RS24W5E		5 VDC	600 mA	81
3V1RS24W9E		9 VDC	333 mA	83
3V1RS24W12E		12 VDC	250 mA	85
3V1RS24W15E		15 VDC	200 mA	88
3V1RS48W3.3E	36-72 VDC	3.3 VDC	650 mA	74
3V1RS48W5E		5 VDC	600 mA	77
3V1RS48W9E		9 VDC	333 mA	80
3V1RS48W12E		12 VDC	250 mA	82
3V1RS48W15E		15 VDC	200 mA	84

SPECIFICATIONS

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

INPUT SPECIFICATIONS

Input Voltage Range	2:1
Input Filter	Capacitor Type

OUTPUT SPECIFICATIONS

Voltage Accuracy		±1% typ. ±2% max.
Ripple and Noise, 20MHz BW	without external output Capacitor with external output Capacitor	70 mV p-p max. 30 mV p-p max.
Short Circuit Protection		Continuous
Line Regulation	Low Line to High Line at max. Load	±0.2% max.
Load Regulation	10% to 100% Load	±0.1% typ. ±0.5% max.

GENERAL SPECIFICATION

Efficiency	see table
Isolation Voltage	1000 VDC min.
Isolation Capacity	40 pF
Isolation Resistance	1000 Mohms
Operating Frequency 100% to 10% Load	90-550 kHz depending on load (PFM-Pulse Frequency Modulation)
Operating Temperature Range	-40°C to +80°C*
Storage Temperature Range	-50°C to +125°C
Humidity	95% max.
Weight	7.0 grams
Case Material	Non-Conductive Black Plastic
Potting Material	Epoxy (UL94V-0)
Case Dimensions	32.2 x 14.7 x 7.4 mm
MTBF (MIL-HDBK-217F)	1,000,000 hrs

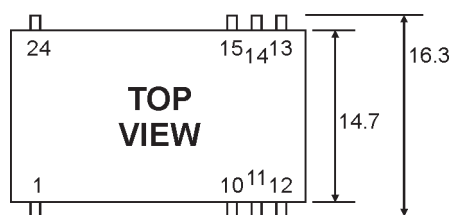
*3 W output power up to +80°C without heat sink except the 4.5-9 V input voltage range which is derated to 2.4 W

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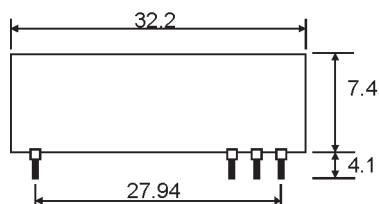
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MECHANICAL SPECIFICATIONS

CASE "V1"



PIN CONNECTIONS	
PIN	SINGLE
1 & 24	+INPUT
10 & 15	-OUTPUT
11 & 14	+OUTPUT
12 & 13	-INPUT

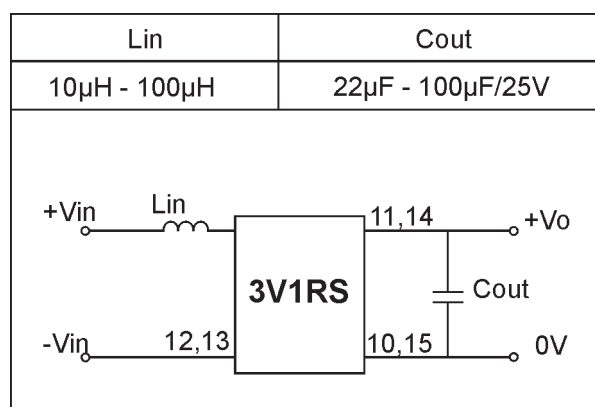


All Dimensions in mm.
Tolerances: ± 0.25 mm

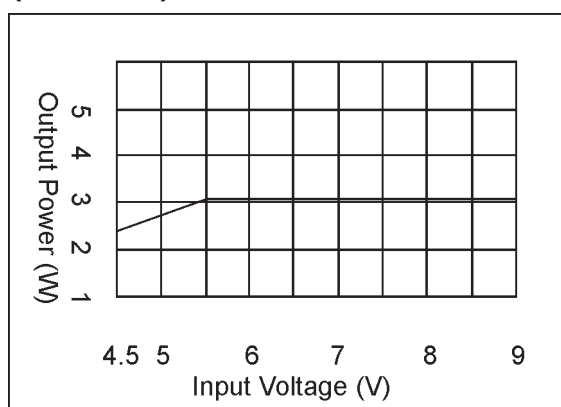
APPLICATION NOTE

Although these converters could work without external capacitor, we recommend to use an external output capacitor (Cout) to reduce output ripple & noise below 30 mV p-p.

Please find the recommended circuit and values as follows:

Recommended Circuit for Reduced Ripple

Use the low ESR Cout capacitors and inductor Lin to reduce output ripple and input inrush current.

Power Derating Curve at 3V1RS5W..E (4.5 to 9 Vin)**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.