PSRW-78xxLF

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PSRW-SERIES Rev.11-2010

- ✓ 500 mA **Switching Regulator**
- ✓ **Wide** Input
- ✓ **SIP3** Plastic Package
- ✓ Non-Isolated & Non-Regulated
- ✓ **Low quiescence** out current
- ✓ Short Circuit Protection
- ✓ Low Ripple and Noise

The PSRW series is a family of cost effective 1.65~7.5W single output buck DC-DC converters. These converters are encapsulated in a non conductive black plastic 3-pin SIP case, continuous short circuit protection with automatic restart, good line / load regulation and ultra low quiescence current. Devices are filled up with flame retardant resin .Input voltages of 9~72, 14~72, 17~72, 20~72, and 36~72 with output voltage of 3.3, 5, 6.5, 7.2, 9 , 12 and 15Vdc. High performance features include high efficiency operation up to 95%.

All specifications typical at Ta=25℃, nominal input voltage and full load unless otherwise specified

Input Specifications	
Voltage Range	Wide Input (See Table)
Filter	Capacitors
Input Reflected Ripple Current	35mA pk-pk
Output Specifications	
Voltage Accuracy	± 3%
Short Circuit Protection	Indefinite (Automatic Recovery)
Line Regulation	± 1%
Load Regulation (10% - 100% load)	± 0.6%
Ripple and Noise (20Mhz bandwidth)	75 mV pk-pk
Temperature Coefficient	± 0.02% / ℃
Capacitor Load	100 uF
General Specifications	
Efficiency	See Table
Switching Frequency	120 - 800 kHz
Humidity	95% rel H
Reliability Calculated MTBF (MIL-HDBK-217F)	> 4.5 Mhrs
Physical Specifications	
Case Material	Non Conductive Black Plastic (UL94V-0 rated)
Potting Material	Silicon (UL94V-0 rated)
Weight	~ 1.8 g, typ.
Environment Specifications	
Operating Temperature	-40 to +60℃ (for 100%)
Maximum Case Temperature	105℃
Storage Temperature	-40 to +125℃
Cooling	Free Air Convection (10mm distance required)
EMC Characteristics	
Radiated Emissions	EN55022 CLASS B
Conducted Emissions	EN55022 CLASS B
ESD	EN61000-4-2 Pref. Criteria A

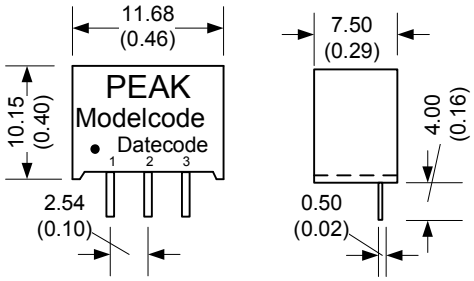
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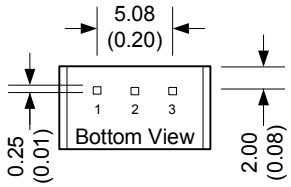
Selection Guide

Order #	Input Voltage Range (VDC)	Input Current no Load (mA)	Input Current full Load (Vin min.)	Input Current full Load (Vin max.)	Output Voltage (V)	Output Current (mA)	Efficiency (Vin min.) (%)	Efficiency (Vin max.) (%)
PSRW-783R3LF	9-72	3.0	230	32	3.3	500	82	75
PSRW-7805LF	9-72	3.0	327	45	5.0	500	87	80
PSRW-786R5LF	9-72	3.0	406	56	6.5	500	91	83
PSRW-787R2LF	14-72	3.0	289	61	7.2	500	91	84
PSRW-7809LF	14-72	3.0	358	76	9.0	500	92	86
PSRW-7812LF	17-72	3.0	384	97	12	500	94	89
PSRW-7815LF	20-72	3.0	404	119	15	500	95	91

If you need other specifications, please enquire.

Package / Pinning / Derating

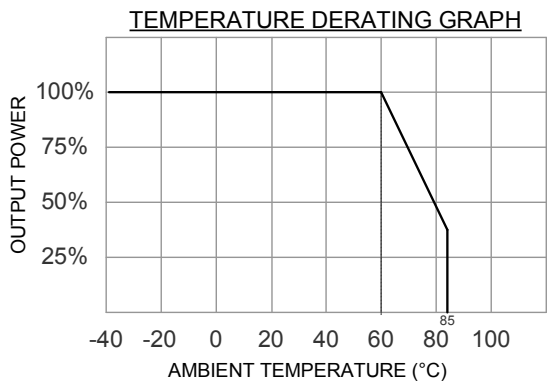


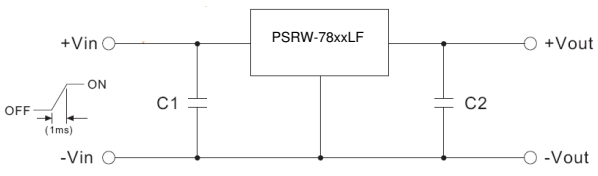


PIN CONNECTIONS	
#	Switching Reg.
1	+Vin
2	GND
3	+Vout

Notes : All dimensions are typical in millimeters (inches).
1. Pin diameter: 0.5 ±0.05 (0.02±0.002)
2. Pin pitch tolerance: ±0.35 (±0.014)
3. Case Tolerance: ±0.5 (±0.02)

Specification may change without notice. Pin length is typical.





1. If Vin>**50V**, in order to protect the converter during power-up, an external capacitor C1=3.3uF/100V is required.

2. C2=100uF(Optional)