



SUPERWORLD ELECTRONICS

SW3R UW Series – 3W Ultra-Wide Input Single & Dual Output DC-DC Converter



RoHS Compliant



FEATURES

- Industry standard E & L packages
- Ultra-Wide Input Range 18-75 Vdc
- Single & Dual 1500Vdc Isolated Outputs
- Operating Temp Range -40°C to 100°C
- High Efficiencies to 85%
- Continuous Short Circuit Protection
- Undervoltage Lock-out
- Metal Casing
- 2 Year Warranty
- Internal Input and Output Filtering

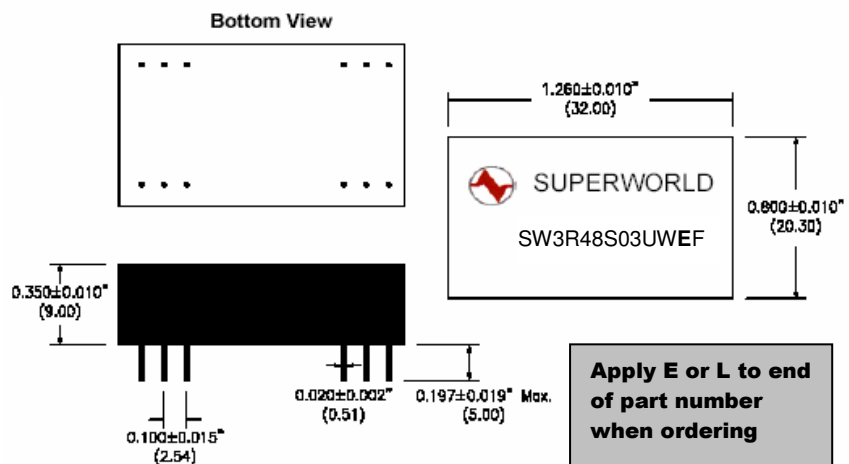
SW3R UW PRODUCT RANGE					
Model	Vin (Vdc)	Vout (Vdc)	Iout (mA)	Iin (rated) (mA)	Eff. (%)
SW3R48S03UWF	18-75	3.3	909	165	76
SW3R48S05UWF	18-75	5	600	150	80
SW3R48S09UWF	18-75	9	333	150	82
SW3R48S12UWF	18-75	12	250	150	83
SW3R48S15UWF	18-75	15	200	135	85
SW3R48D03UWF	18-75	± 3.3	± 454	83	74
SW3R48D05UWF	18-75	± 5	± 300	75	78
SW3R48D09UWF	18-75	± 9	± 167	75	80
SW3R48D12UWF	18-75	± 12	± 125	75	82
SW3R48D15UWF	18-75	± 15	± 100	68	84

DESCRIPTION

The SW3R UW Series is a 1500Vdc isolated range of single and dual output 3W DC-DC converters, designed with a 4:1 input voltage range and ideal for use in a whole variety of telecoms, industrial and distributed power applications. The ultra-wide input range and large number of output options ensures a product that meets the requirements of the most challenging of environments. Available in industry standard E and L DIP packages (32 x 20 x 9 mm), the SW3R UW is fully encapsulated in a metal case and is designed to meet EN60950 and UL1950 safety standards. Continuous SC protection and UVLO are some of the many SW3R UW features.

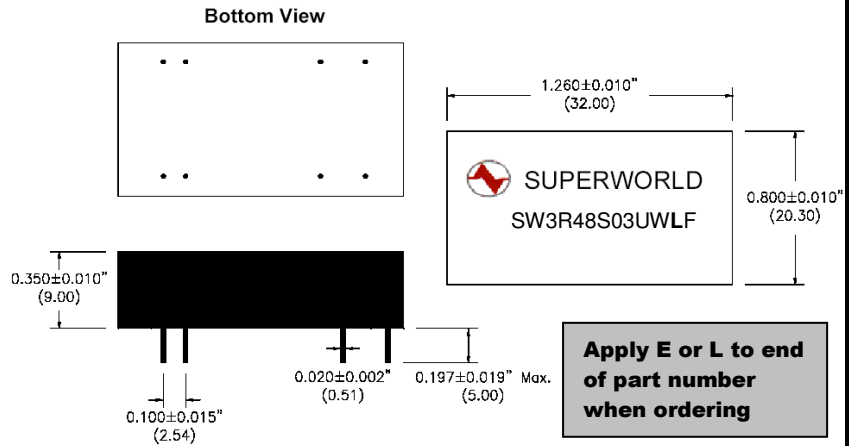
MECHANICAL (E Package)

Pin	Singles	Dual
1	+Vin	+Vin
2	NC	-Vout
3	NC	Common
10	-Vout	Common
11	+Vout	+Vout
12	-Vin	-Vin
13	-Vin	-Vin
14	+Vout	+Vout
15	-Vout	Common
22	NC	Common
23	NC	-Vout
24	+Vin	+Vout



MECHANICAL (L Package)

Pin	Singles	Dual
2	-Vin	-Vin
3	-Vin	-Vin
9	NC	Common
11	NC	-Vout
14	+Vout	+Vout
16	-Vout	Common
22	+Vin	+Vin
23	+Vin	+Vin



SW3R UW INPUT SPECIFICATIONS

PARAMETER	CONDITIONS	MIN	TYPICAL	MAX	UNITS
Input Current (No Load)	All models		20		mA
Voltage Range		18		75	Vdc
Transient Input Voltage (1msec)				100	Vdc
Undervoltage Lockout	On			17.5	Vdc
	Off	16			
Reflected Ripple Current			35		mA _{p-p}

SW3R UW OUTPUT SPECIFICATIONS

PARAMETER	CONDITIONS	MIN	TYPICAL	MAX	UNITS
Rated Power	All models			3.0	W
Voltage Setpoint Accuracy				±5	%
Line Regulation	1% change in Vin		± 0.5	± 2	%
Load Regulation	(10% load to rated load)		± 1	±3	%
Ripple & Noise	BW = DC to 20MHz			1%	p-p
Current Limit	120% x Iout			4.6	W
Output Overvoltage Clamp				120	% Vout
Temperature Coefficient		± 0.008			%/°C
Short Circuit Protection				1	second

SW3R UW GENERAL CHARACTERISTICS

PARAMETER	CONDITIONS	MIN	TYPICAL	MAX	UNITS
Temperature	Temperature (Ambient)	-25		70	°C
	Temperature (Case)	-40		100	°C
	Storage	-40		100	°C
Isolation	Isolation Test Voltage	1500			Vdc
	Resistance	10			GΩ
	Capacitance		20		pF
	Leakage Current		20		μArms
Switching Frequency			150		kHz
MTTF (Ta = 25 °C)	MIL-HDBK-217E		450000		hrs
Weight				20	g

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