



SUPERWORLD ELECTRONICS

SW3R WSM Series – 3W Wide Input Single & Dual SMD DC-DC Converter



RoHS Compliant



FEATURES

- Industry std 24-pin SMD package
- Wide Input Ranges 18-36 & 36-75 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

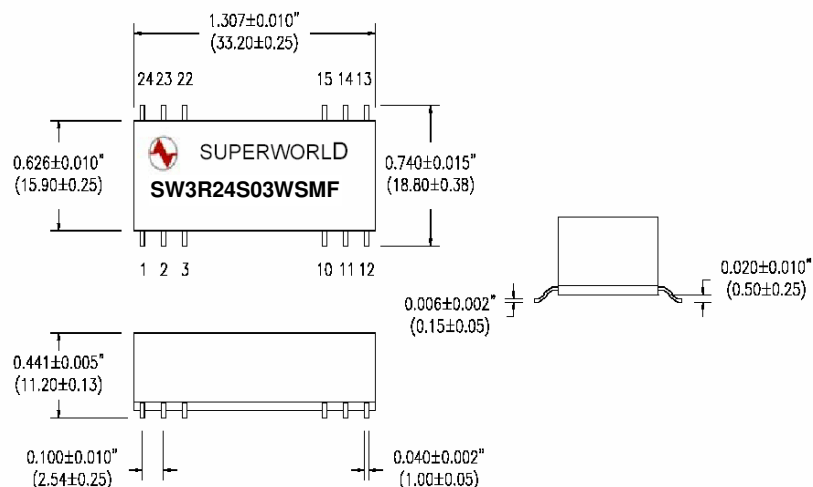
SW3R WSM PRODUCT RANGE					
Model	Vin (Vdc)	Vout (Vdc)	Iout (mA)	Iin (rated)	Eff. (%)
SW3R24S03WSMF	18-36	3.3	909	165	76
SW3R24S05WSMF	18-36	5	600	150	80
SW3R24S09WSMF	18-36	9	333	150	82
SW3R24S12WSMF	18-36	12	250	150	83
SW3R24S15WSMF	18-36	15	200	135	85
SW3R24D03WSMF	18-36	± 3.3	± 454	83	74
SW3R24D05WSMF	18-36	± 5	± 300	75	78
SW3R24D09WSMF	18-36	± 9	± 167	75	80
SW3R24D12WSMF	18-36	± 12	± 125	75	82
SW3R24D15WSMF	18-36	± 15	± 100	68	84
SW3R48S03WSMF	36-75	3.3	909	165	76
SW3R48S05WSMF	36-75	5	600	150	80
SW3R48S09WSMF	36-75	9	333	150	82
SW3R48S12WSMF	36-75	12	250	150	83
SW3R48S15WSMF	36-75	15	200	135	85
SW3R48D03WSMF	36-75	± 3.3	± 454	83	74
SW3R48D05WSMF	36-75	± 5	± 300	75	78
SW3R48D09WSMF	36-75	± 9	± 167	75	80
SW3R48D12WSMF	36-75	± 12	± 125	75	82
SW3R48D15WSMF	36-75	± 15	± 100	68	84

DESCRIPTION

The SW3R WSM Series is a 1500Vdc isolated range of single and dual output 3W DC-DC converters, designed with a 2:1 input voltage range and ideal for use in a whole variety of telecoms, industrial and distributed power applications. In an industry standard surface mount packages (33 x 16 x 11 mm), the SW3R WSM is fully encapsulated in a non-flammable plastic case (meeting UL 94V-0) and is designed to meet EN60950 and UL1950 safety standards. Continuous SC protection and UVLO are some of the many SW3R WSM features.

MECHANICAL SPECIFICATION

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



SW3R WSM INPUT SPECIFICATIONS					
PARAMETER	CONDITIONS	MIN	TYPICAL	MAX	UNITS
Input Current (No Load)	All models		20		mA
Voltage Range	SW3R24	18	24	36	Vdc
	SW3R48	36	48	75	
Transient Input Voltage (1msec)	SW3R24			50	Vdc
	SW3R48			100	
Undervoltage Lockout (SW3R24)	On	16		17.5	Vdc
	Off				
Undervoltage Lockout (SW3R48)	On	32.5		34.5	
	Off				
Reflected Ripple Current			35		mAp-p

SW3R WSM 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			3.6	W
Output Overvoltage Clamp				120	% Vout
Temperature Coefficient		± 0.008			%/°C
Short Circuit Protection				1	second

SW3R WSM 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

Refer to Medium Power Application Note 1 for additional Performance Curves & Data

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