



SUPERWORLD ELECTRONICS

SW6R WSM Series – 6W 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

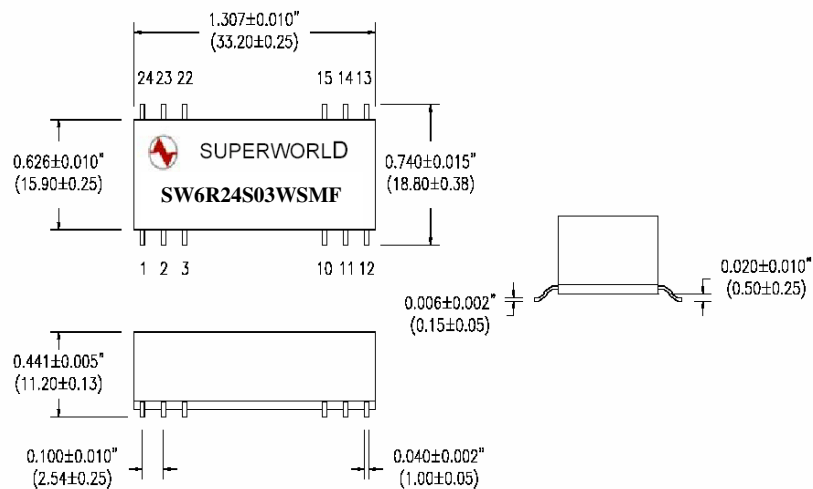
SW6R WSM PRODUCT RANGE					
Model	Vin (Vdc)	Vout (Vdc)	Iout (mA)	Iin (rated) (mA)	Eff. (%)
SW6R24S03WSMF	18-36	3.3	1818	165	76
SW6R24S05WSMF	18-36	5	1200	150	80
SW6R24S09WSMF	18-36	9	666	150	82
SW6R24S12WSMF	18-36	12	500	150	83
SW6R24S15WSMF	18-36	15	400	135	85
SW6R24D03WSMF	18-36	± 3.3	± 908	83	74
SW6R24D05WSMF	18-36	± 5	± 600	75	78
SW6R24D09WSMF	18-36	± 9	± 334	75	80
SW6R24D12WSMF	18-36	± 12	± 250	75	82
SW6R24D15WSMF	18-36	± 15	± 200	68	84
SW6R48S03WSMF	36-75	3.3	1818	165	76
SW6R48S05WSMF	36-75	5	1200	150	80
SW6R48S09WSMF	36-75	9	666	150	82
SW6R48S12WSMF	36-75	12	500	150	83
SW6R48S15WSMF	36-75	15	400	135	85
SW6R48D03WSMF	36-75	± 3.3	± 908	83	74
SW6R48D05WSMF	36-75	± 5	± 600	75	78
SW6R48D09WSMF	36-75	± 9	± 334	75	80
SW6R48D12WSMF	36-75	± 12	± 250	75	82
SW6R48D15WSMF	36-75	± 15	± 200	68	84

DESCRIPTION

The SW6R WSM Series is a 1500Vdc isolated range of single and dual output 6W 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 SW6R 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 SW6R W 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



SW6R WSM INPUT SPECIFICATIONS					
PARAMETER	CONDITIONS	MIN	TYPICAL	MAX	UNITS
Input Current (No Load)	All models		20		mA
Voltage Range	SW6R24	18	24	36	Vdc
	SW6R48	36	48	75	
Transient Input Voltage (1msec)	SW6R24			50	Vdc
	SW6R48			100	
Undervoltage Lockout (SW6R24)	On			17.5	Vdc
Undervoltage Lockout (SW6R48)	Off	16			
	On			34.5	
	Off	32.5			
Reflected Ripple Current			35		mAp-p

SW6R WSM OUTPUT SPECIFICATIONS					
PARAMETER	CONDITIONS	MIN	TYPICAL	MAX	UNITS
Rated Power	All models			6.0	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			7.2	W
Output Overvoltage Clamp				120	% Vout
Temperature Coefficient		± 0.008			%/°C
Short Circuit Protection				1	second

SW6R 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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