



SUPERWORLD ELECTRONICS

SW2R W Series – 2W Wide Input Single & Dual Output DC-DC Converter



RoHS Compliant



FEATURES

- Industry standard E & L packages
- 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

SW2R W PRODUCT RANGE					
Model	Vin (Vdc)	Vout (Vdc)	Iout (mA)	Iin (rated) (mA)	Eff. (%)
SW2R24S03WF	18-36	3.3	606	110	76
SW2R24S05WF	18-36	5	400	100	80
SW2R24S09WF	18-36	9	222	100	82
SW2R24S12WF	18-36	12	167	100	83
SW2R24S15WF	18-36	15	133	90	85
SW2R24D03WF	18-36	± 3.3	± 303	55	74
SW2R24D05WF	18-36	± 5	± 200	50	78
SW2R24D09WF	18-36	± 9	± 111	50	80
SW2R24D12WF	18-36	± 12	± 84	50	82
SW2R24D15WF	18-36	± 15	± 67	45	84
SW2R48S03WF	36-75	3.3	606	110	76
SW2R48S05WF	36-75	5	400	100	80
SW2R48S09WF	36-75	9	222	100	82
SW2R48S12WF	36-75	12	167	100	83
SW2R48S15WF	36-75	15	133	90	85
SW2R48D03WF	36-75	± 3.3	± 303	55	74
SW2R48D05WF	36-75	± 5	± 200	50	78
SW2R48D09WF	36-75	± 9	± 111	50	80
SW2R48D12WF	36-75	± 12	± 84	50	82
SW2R48D15WF	36-75	± 15	± 67	45	84

DESCRIPTION

The SW2R W Series is a 1500Vdc isolated range of single and dual output 2W 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. Available in industry standard E and L DIP packages (32 x 20 x 9 mm), the SW2R W 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 SW2R W features.

MECHANICAL
(E Package)

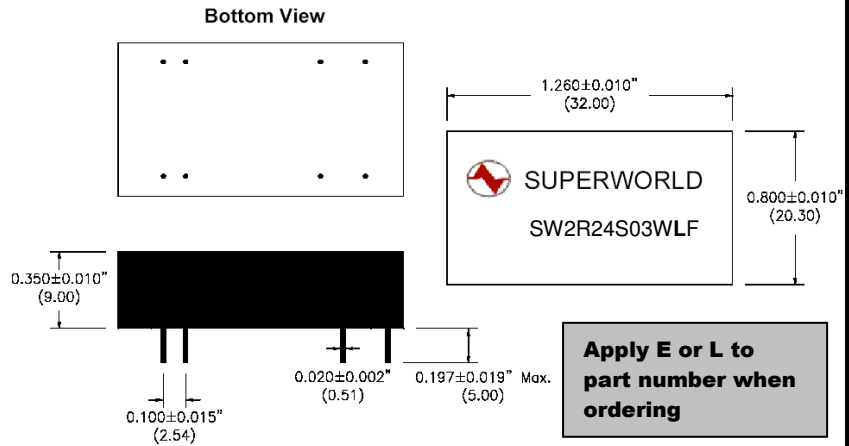
Pin	Singles	Dual
1	+Vin	+Vin
2	NC	-Vout
3	NC	Common
10	-Vout	Common
11	+Vout	+Vout
12	-Vin	-Vin
13	-Vin	-Vin
14	+Vout	+Vout
15	-Vout	Common
22	NC	Common
23	NC	-Vout
24	+Vin	+Vout

Bottom View

Apply E or L to part number when ordering

**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



SW2R W INPUT SPECIFICATIONS

PARAMETER	CONDITIONS	MIN	TYPICAL	MAX	UNITS
Input Current (No Load)	All models		20		mA
Voltage Range	SW2R24	18	24	36	Vdc
	SW2R48	36	48	75	
Transient Input Voltage (1msec)	SW2R24			50	Vdc
	SW2R48			100	
Undervoltage Lockout (SW2R24)	On			17.5	Vdc
Undervoltage Lockout (SW2R48)	Off	16			
	On			34.5	
Reflected Ripple Current	Off	32.5			
			35		mAp-p

SW2R W OUTPUT SPECIFICATIONS

PARAMETER	CONDITIONS	MIN	TYPICAL	MAX	UNITS
Rated Power	All models			2.0	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			2.4	W
Output Overvoltage Clamp				120	% Vout
Temperature Coefficient		± 0.008			%/ °C
Short Circuit Protection				1	second

SW2R W 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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