

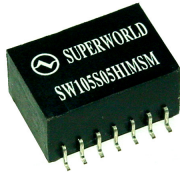


SUPERWORLD ELECTRONICS

SW1 HIMSM Series – 0.75W High Isolation 3kVdc Surface Mount DC-DC Converter



RoHS Compliant



FEATURES

- 3kVdc Isolated Single & Dual Outputs
- Low Cost, High Performance
- Industry standard 14-pin SMD package
- Operating Temp Range -40°C to 85°C
- 2 Year Warranty
- Internal Input and Output Filtering

DESCRIPTION

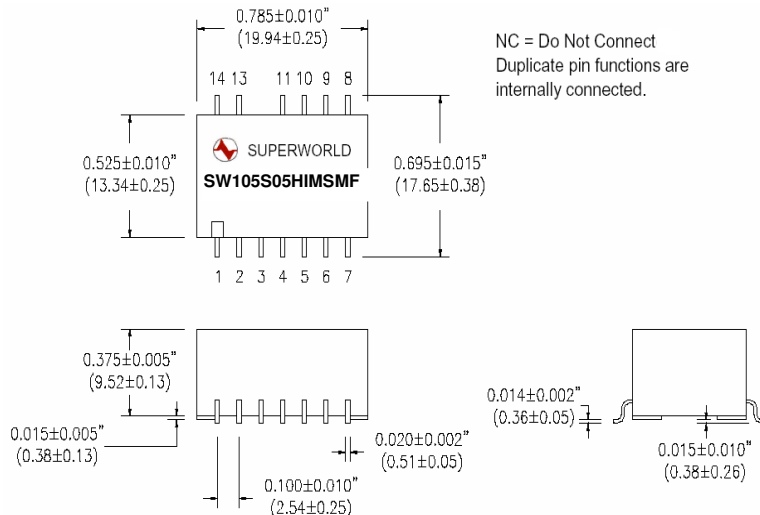
The SW1 HIMSM Series provides 3kVdc isolation for more challenging applications and is packaged in an industry standard SMD package. The package (19.9 x 13.5 x 9.5 mm) is fully encapsulated in a non-flammable plastic case (meeting UL 94V-0) and is designed to meet EN60950 and UL1950 safety standards. As outputs are fully isolated from the input, a variety of grounding and polarity configurations are available.

SW1 HIMSM PRODUCT RANGE

Model	Vin (nom) (Vdc)	Vout (Vdc)	Iout (mA)	Iin (rated) (mA)	Eff. (%)
SW105S05HIMSMF	5	5	150	217	69
SW105S12HIMSMF	5	12	62	213	70
SW105S15HIMSMF	5	15	50	211	71
SW105D05HIMSMF	5	± 5	± 75	221	68
SW105D12HIMSMF	5	± 12	± 30	219	68
SW105D15HIMSMF	5	± 15	± 25	200	75
SW112S05HIMSMF	12	5	150	81	77
SW112S12HIMSMF	12	12	62	81	77
SW112S15HIMSMF	12	15	50	81	77
SW112D05HIMSMF	12	± 5	± 75	88	71
SW112D12HIMSMF	12	± 12	± 30	84	74
SW112D15HIMSMF	12	± 15	± 25	81	77
SW115S05HIMSMF	15	5	150	72	69
SW115S12HIMSMF	15	12	62	72	69
SW115S15HIMSMF	15	15	50	72	69
SW115D05HIMSMF	15	± 5	± 75	72	71
SW115D12HIMSMF	15	± 12	± 30	64	74
SW115D15HIMSMF	15	± 15	± 25	81	77
SW124S05HIMSMF	24	5	150	47	69
SW124S12HIMSMF	24	12	62	47	69
SW124S15HIMSMF	24	15	50	45	69
SW124D05HIMSMF	24	± 5	± 75	45	71
SW124D12HIMSMF	24	± 12	± 30	46	74
SW124D15HIMSMF	24	± 15	± 25	45	77

MECHANICAL SPECIFICATIONS

Pin	Function (SINGLE)	Function (DUAL)
1	+Vin	+Vin
2	-Vin	-Vin
3	NC	NC
4	NC	NC
5	-Vout	-Vout
6	NC	Common
7	+Vout	+Vout
8	NC	NC
9	NC	NC
10	NC	NC
11	NC	NC
13	NC	NC
14	NC	NC



SW1 HIMSM INPUT SPECIFICATIONS					
PARAMETER	CONDITIONS	MIN	TYPICAL	MAX	UNITS
Input Current (No Load)	5 Vin models		20		mA
	12 Vin models		10		
	15 & 24 Vin models		8		
Voltage Range	5 Vin models	4.5	5	5.5	Vdc
	12 Vin models	10.8	12	13.2	
	15 Vin models	13.5	15	16.5	
	24 Vin models	21.5	24	26.5	

SW1 HIMSM OUTPUT SPECIFICATIONS					
PARAMETER	CONDITIONS	MIN	TYPICAL	MAX	UNITS
Rated Power	All models			0.75	W
Voltage Setpoint Accuracy			± 5		%
Line Regulation	1% change in Vin			1.2	%
Load Regulation (10% load to rated load)	5Vout		5	10	%
	12 & 15 Vout		3	10	%
Ripple & Noise	BW = DC to 20MHz All models		45	90	mVp-p
Maximum Voltage (1 mA load)	5 Vout models			7	Vdc
	12 Vout models			15	
	15 Vout models			18	
Temperature Coefficient			± 0.01		%/°C
Capacitive Load				10	µF
Short Circuit Protection				1	second

SW1 HIMSM GENERAL CHARACTERISTICS					
PARAMETER	CONDITIONS	MIN	TYPICAL	MAX	UNITS
Temperature	Specification (5&12V)	-40	--	85	°C
	Specification (15&24V)	-40	--	70	°C
	Storage	-40	--	110	°C
Isolation	Isolation Test Voltage	3000			Vdc
	Resistance	10			GΩ
	Capacitance		25	100	pF
	Leakage Current		2	8.5	µArms
Switching Frequency			120		kHz
MTTF (Ta = 25 °C)	MIL-HDBK-217E		450000		hrs
Weight			2		G

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

CONTACT INFORMATION

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