



## SW1 HISM Series – 1W High Isolation 3kVdc SMD 24-pin DIP DC-DC Converter



RoHS Compliant



### FEATURES

- 3kVdc Isolated Single & Dual Outputs
- Low Cost, High Performance
- Industry standard 24-pin DIP SMD
- Operating Temp Range  $-40^{\circ}\text{C}$  to  $85^{\circ}\text{C}$
- 2 Years Warranty
- Internal Input and Output Filtering

### DESCRIPTION

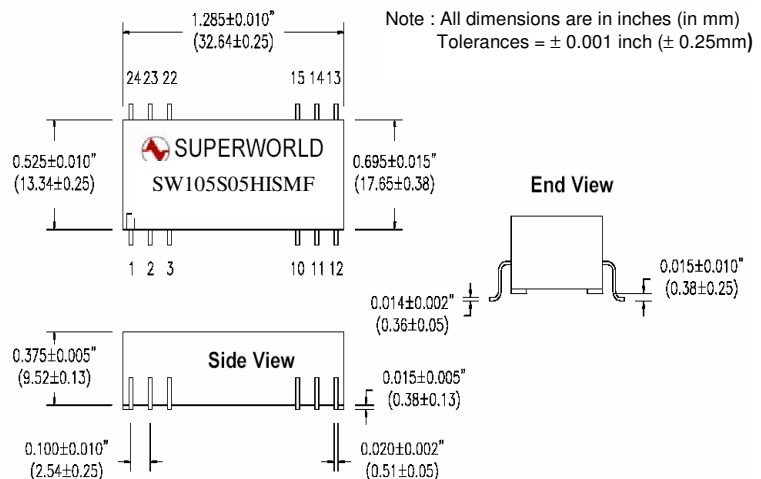
The SW1 HISM Series provides 3kVdc isolation for the most challenging of applications. The industry standard 24-pin DIP SMD package size of 32.6 x 13.3 x 9.5 mm, is fully isolated with single and dual output models. The SW1 HISM is fully encapsulated in a non-flammable plastic case (meeting UL 94V-0) and is designed to meet EN60950 and UL1950 safety standards.

### SW1 HISM PRODUCT RANGE

Model	Vin (nom) (Vdc)	Vout (Vdc)	Iout (mA)	Iin (rated) (mA)	Eff. (%)
SW105S05HISMF	5	5	200	290	69
SW105S12HISMF	5	12	83	285	70
SW105S15HISMF	5	15	66	279	71
SW105D05HISMF	5	$\pm 5$	$\pm 100$	294	68
SW105D12HISMF	5	$\pm 12$	$\pm 42$	296	68
SW105D15HISMF	5	$\pm 15$	$\pm 42$	336	75
SW112S05HISMF	12	5	200	108	77
SW112S12HISMF	12	12	83	108	77
SW112S15HISMF	12	15	66	107	77
SW112D05HISMF	12	$\pm 5$	$\pm 100$	117	71
SW112D12HISMF	12	$\pm 12$	$\pm 42$	114	74
SW112D15HISMF	12	$\pm 15$	$\pm 42$	136	77
SW115S05HISMF	15	5	200	97	69
SW115S12HISMF	15	12	83	96	69
SW115S15HISMF	15	15	66	96	69
SW115D05HISMF	15	$\pm 5$	$\pm 100$	97	69
SW115D12HISMF	15	$\pm 12$	$\pm 42$	86	78
SW115D15HISMF	15	$\pm 15$	$\pm 42$	106	79
SW124S05HISMF	24	5	200	63	66
SW124S12HISMF	24	12	83	63	66
SW124S15HISMF	24	15	66	60	69
SW124D05HISMF	24	$\pm 5$	$\pm 100$	60	69
SW124D12HISMF	24	$\pm 12$	$\pm 42$	63	67
SW124D15HISMF	24	$\pm 15$	$\pm 42$	76	69

### MECHANICAL SPECIFICATIONS

Pin	Function (SINGLE)	Function (DUAL)
1	+Vout	+Vout
2	-Vout	Common
3	Not Used	-Vout
10	-Vin	-Vin
11	NC	NC
12	+Vin	+Vin
13	+Vin	+Vin
14	NC	NC
15	-Vin	-Vin
22	Not Used	-Vout
23	-Vout	Common
24	+Vout	+Vout



SW1 HISM INPUT SPECIFICATIONS					
PARAMETER	CONDITIONS	MIN	TYPICAL	MAX	UNITS
Input Current (No Load)	All models		20		mA
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 HISM OUTPUT SPECIFICATIONS					
PARAMETER	CONDITIONS	MIN	TYPICAL	MAX	UNITS
Rated Power	All models			1.00	W
Voltage Setpoint Accuracy			± 3		%
Line Regulation	1% change in Vin		1.0	1.2	%
Load Regulation (10% load to rated load)	5Vout		5	10	%
	12 & 15 Vout		3	10	
Ripple & Noise	BW = DC to 20MHz		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 HISM GENERAL CHARACTERISTICS					
PARAMETER	CONDITIONS	MIN	TYPICAL	MAX	UNITS
Temperature	Specification (5&12V input)	-40	--	85	°C
	Specification (15&24V input)	-40	--	70	°C
	Storage	-40	--	110	°C
Isolation	Isolation Test Voltage	3000			Vdc
	Resistance	10			GΩ
	Capacitance		10		pF
	Leakage Current		1	2	µArms
Switching Frequency			120		kHz
MTTF (Ta = 25 °C)	MIL-HDBK-217E		450000		hrs
Weight				1.8	g

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

## CONTACT INFORMATION

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