SUPERWORLD ELECTRONICS

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°C to 85°C
- 2 Years Warranty
- Internal Input and Output Filtering

DESCRIPTION

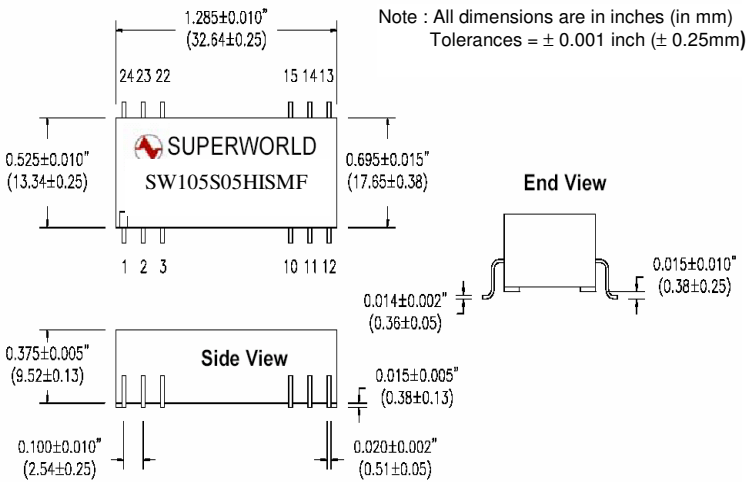
The SW1 HISM Series provides 3kVdc isolation for the most challenging of applications. The industry standard 24-pin DIP SMD package size of 32.6 x 13.3 x 9.5 mm, is fully isolated with single and dual output models. The SW1 HISM is fully encapsulated in a non-flammable plastic case (meeting UL 94V-0) 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	± 5	± 100	294	68
SW105D12HISMF	5	± 12	± 42	296	68
SW105D15HISMF	5	± 15	± 42	336	75
SW112S05HISMF	12	5	200	108	77
SW112S12HISMF	12	12	83	108	77
SW112S15HISMF	12	15	66	107	77
SW112D05HISMF	12	± 5	± 100	117	71
SW112D12HISMF	12	± 12	± 42	114	74
SW112D15HISMF	12	± 15	± 42	136	77
SW115S05HISMF	15	5	200	97	69
SW115S12HISMF	15	12	83	96	69
SW115S15HISMF	15	15	66	96	69
SW115D05HISMF	15	± 5	± 100	97	69
SW115D12HISMF	15	± 12	± 42	86	78
SW115D15HISMF	15	± 15	± 42	106	79
SW124S05HISMF	24	5	200	63	66
SW124S12HISMF	24	12	83	63	66
SW124S15HISMF	24	15	66	60	69
SW124D05HISMF	24	± 5	± 100	60	69
SW124D12HISMF	24	± 12	± 42	63	67
SW124D15HISMF	24	± 15	± 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



Note : All dimensions are in inches (in mm)
Tolerances = ± 0.001 inch (± 0.25mm)

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	5Vout		5	10	%
(10% load to rated load)	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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