

SGC101B5S

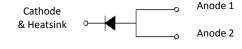
Surface Mount Schottky Rectifier Reverse Voltage 150V Forward Current 10A

Features

- · Schottky barrier diodes
- · Low forward voltage drop
- · Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260 °C, 10 s
- Low profile typical height of 1.1 mm
- · Heatsink design
- High temperature soldering guaranteed: 260°C/10 seconds
- Halogen-free according to IEC 61249-2-21 definition



eSGC (TO-277)



Typical Applications

For low voltage high frequency inverters, DC/DC converters and polarity protection application.

Maximum Ratings (TA = 25 °C unless otherwise noted)						
Parameter	Symbol	SGC101B5S	Unit			
Maximum repetitive peak reverse voltage	VRRM	150	V			
Maximum RMS voltage	VRMS	105	V			
Maximum DC blocking voltage	VDC	150	V			
Maximum average forward rectified current	IF(AV) ¹⁾	5.0	Α			
	IF(AV) ²⁾	10.0				
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	175	А			
Operating junction and storage temperature range	TJ, TSTG	-55 to +150	°C			

Electrical Characteristics (TA = 25 °C unless otherwise noted)									
Parameter	Test Conditions		Symbol	TYP.	MAX.	Unit			
Maximum instantaneous forward voltage	I _F =1A	T _A =25°C		0.60	0.65	Volts			
	I _F =2A			0.67	0.75				
	I _F =5A			0.75	0.80				
	I _F =10A		\/	0.81	0.85				
	I _F =1A	- T _A =125℃	V _F	0.47	0.52				
	I _F =2A			0.54	0.60				
	I _F =5A			0.61	0.65				
	I _F =10A			0.68	0.75				
Maximum DC reverse current at rated DC blocking voltage	Rated VR	T _A =25°C		-	0.1	mA			
		T _A =125°C	'R	-	20				
Typical junction capacitance	4.0 V, 1 MHz		CJ	240		pF			
Typical thermal resistance	juntion to ambient		R _{θJA} ¹⁾	35		°C/W			
	juntion to lead		R _{0JL} ²⁾	10					

Note1)Mounted on FR-4 P.C.B with 30*30mm copper pad area

2)On aluminum substrate PCB with recommended copper pad area

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Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

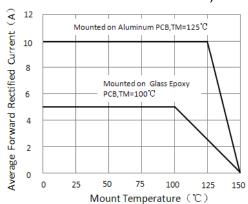


Figure 1. Forward Current Derating Curve

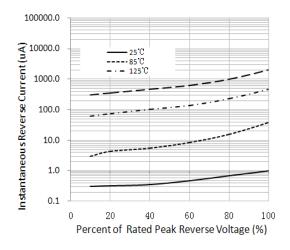


Figure 3. Typical Reverse Characteristics

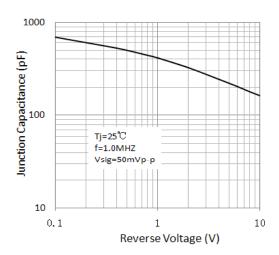


Figure 5. Typical Junction Capacitance

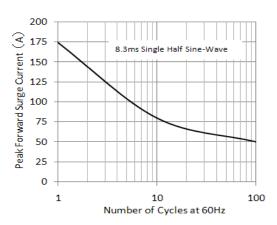


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

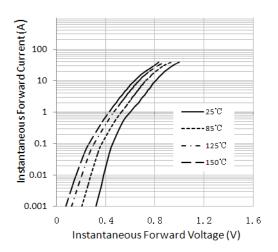
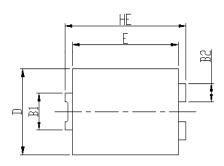


Figure 4. Typical Instantaneous Forward Characteristics

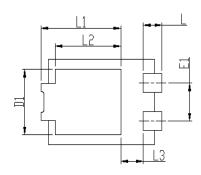


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Package Outline Dimensions

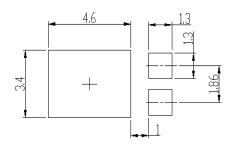






DIM	Unit:	mm	Unit: inch		
	MIN	MAX	MIN	MAX	
HE	6.4	6.6	0.252	0.260	
Е	5.6	5.8	0.220	0.228	
D	4.1	4.3	0.161	0.169	
B1	1.7	1.9	0.067	0.075	
B2	0.8	1	0.031	0.039	
Α	1.05	1.2	0.041	0.047	
С	0.3	0.4	0.012	0.016	
L	0.85	1.1	0.033	0.043	
L1	4.2	4.4	0.165	0.173	
L2	3.52	Тур.	0.139 Typ.		
L3	1.1	1.4	0.043	0.055	
D1	3	3.3	0.118	0.130	
E1	1.86	Тур.	0.073 Typ.		

Soldering footprint

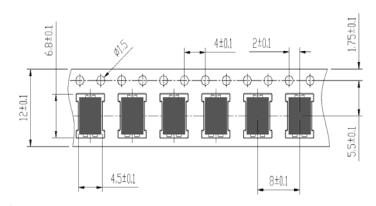


Packing Information

Packing quantities:

5000 pcs/Reel, 12mm Tape, 13" Reel

Tape & Reel Specification





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