

# SGC0320S thru SGC0365S

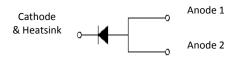
Surface Mount Schottky Rectifier Reverse Voltage 20~65V Forward Current 3A

### **Features**

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



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	SGC0320S	SGC0330S	SGC0340S	SGC0345S	SGC0350S	SGC0360S	SGC0365S	Unit
Maximum repetitive peak reverse voltage	VRRM	20	30	40	45	50	60	65	V
Maximum RMS voltage	VRMS	14	21	28	31.5	35	42	45.5	V
Maximum DC blocking voltage	VDC	20	30	40	45	50	60	65	V
Maximum average forward rectified current	IF(AV) <sup>1)</sup>	3.0					Α		
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	100					Α		
Operating junction and storage temperature range	TJ, TSTG	-55 to +150					°C		

Electrical Characteristics (TA = 25 °C unless otherwise noted)							
Parameter	Test C	onditions	Symbol	SGC0320S thru SGC0345S	SGC0350S thru SGC0365S	Unit	
Maximum instantaneous forward voltage	I <sub>F</sub> =3A	T <sub>A</sub> =25°C	V <sub>F</sub>	0.50	0.70	Volts	
Maximum DC reverse current at rated DC	VK	T <sub>A</sub> =25°C	L	0.3			
blocking voltage		T <sub>A</sub> =125°C	I <sub>R</sub>	50			
Typical junction	4.0 V, 1 MHz C <sub>J</sub>		CJ	230	160		
Typical thermal resistance	juntion to lead pad		R <sub>0JL</sub> 1)	20		°C/W	

Note1)Thermal resistance  $R_{\theta,JL}$  is junction to lead, mounted on P.C.B with 30\*30mm copper pad area



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### Ratings and Characteristics Curves

### (TA = $25^{\circ}$ C unless otherwise noted)

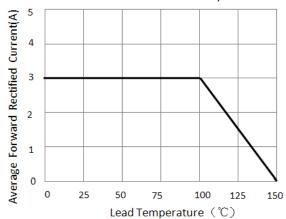


Figure 1. Forward Current Derating Curve

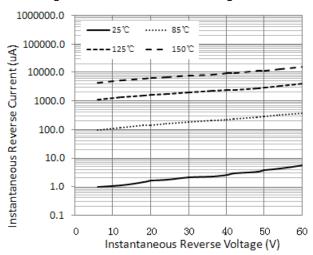


Figure 3. Typical Reverse Characteristics

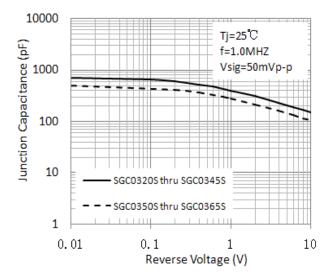


Figure 5. Typical Junction Capacitance

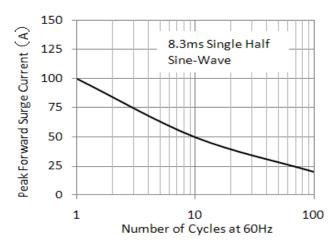


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

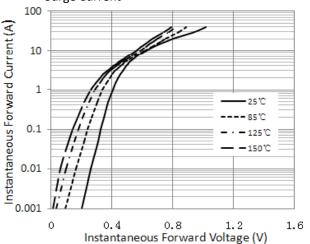


Figure 4. Typical Instantaneous Forward Characteristics (SGC0320S thru SGC0345S)

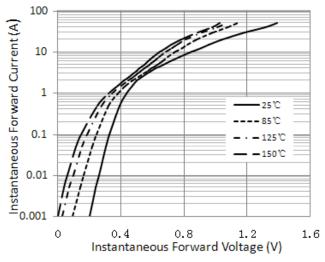


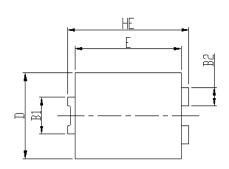
Figure 6. Typical Instantaneous Forward Characteristics (SGC0350S thru SGC0365S)



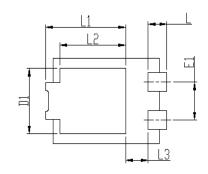
# SGC0320S thru SGC0365S Surface Mount Schottky Rectifier

Surface Mount Schottky Rectifier Reverse Voltage 20~65V Forward Current 3A

## Package Outline Dimensions

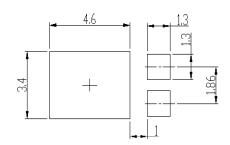






DIM	Unit	mm	Unit: inch		
	MIN	MAX	MIN	MAX	
HE	6.4	6.6	0.252	0.260	
Е	5.6	5.8	0.220	0.228	
D	4.1	4.3	0.161	0.169	
B1	1.7	1.9	0.067	0.075	
B2	0.8	1	0.031	0.039	
Α	1.05	1.2	0.041	0.047	
С	0.3	0.4	0.012	0.016	
L	0.85	1.1	0.033	0.043	
L1	4.2	4.4	0.165	0.173	
L2	3.52	Тур.	0.139 Typ.		
L3	1.1	1.4	0.043	0.055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

Soldering footprint

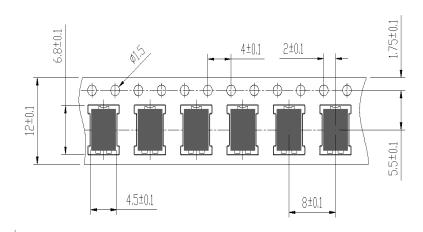


## **Packing Information**

#### Packing quantities:

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

**Tape & Reel Specification** 





## SGC0320S thru SGC0365S

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