SGC2060ST

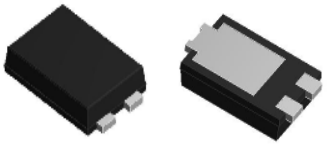
Surface Mount Schottky Rectifier

Reverse Voltage 60V Forward Current 20A

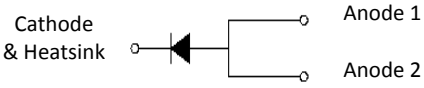
Features

- 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℃/10 seconds
- Halogen-free according to IEC 61249-2-21 definition

RoHS COMPLIANT



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	SGC2060ST	Unit
Maximum repetitive peak reverse voltage	VRRM	60	V
Maximum RMS voltage	VRMS	42	V
Maximum DC blocking voltage	VDC	60	V
Maximum average forward rectified current	IF(AV)	20.0	A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	400	A
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
Instantaneous forward voltage	I_F=1A	T_A=25℃	V_F	0.32	0.34	Volts
	I_F=3A			0.36	0.37	
	I_F=5A			0.39	0.40	
	I_F=10A			0.45	0.46	
	I_F=20A			0.53	0.58	
	I_F=1A	T_A=125℃		0.18	0.20	
	I_F=3A			0.24	0.25	
	I_F=5A			0.28	0.29	
	I_F=10A			0.36	0.37	
	I_F=20A			0.48	0.50	
Reverse current	Rated VR	T_A=25℃	I_R	0.05	0.5	mA
		T_A=125℃		18	200	
Typical junction capacitance	4.0 V, 1 MHz		C_J	2.0		nF
Typical thermal resistance	juntion to mount		$R_{\theta JM}$ 1)	1.0		℃/W

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

Ratings and Characteristics Curves

(TA = 25℃ unless otherwise noted)

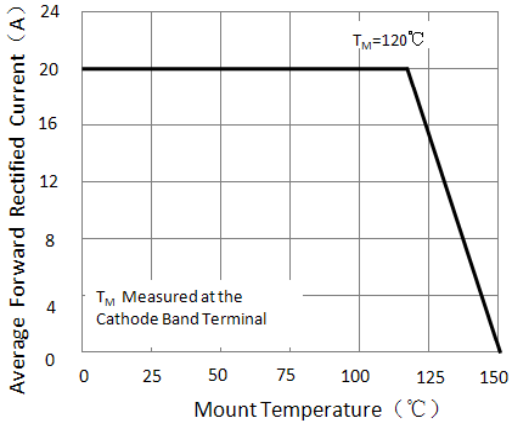


Figure 1.Forward Current Derating Curve

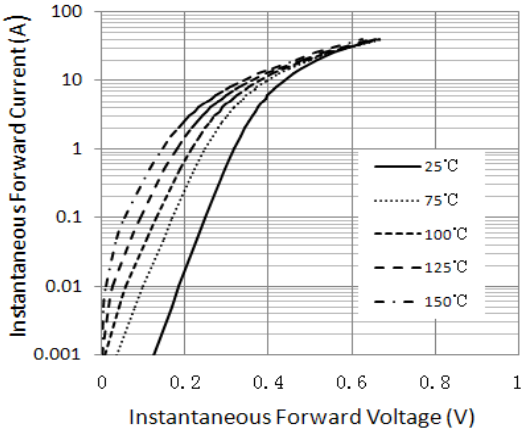


Figure 2. Typical Instantaneous Forward Characteristics

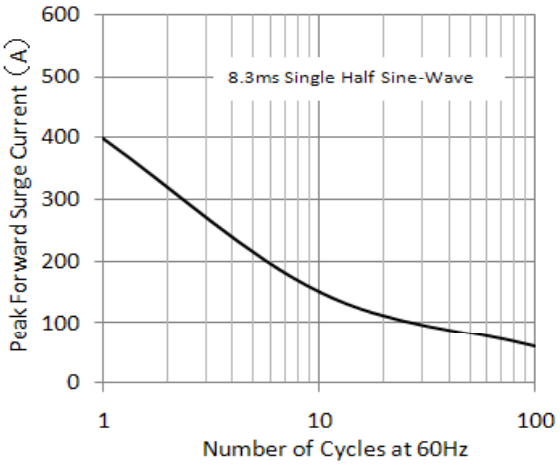


Figure 3.Maximum Non-Repetitive Peak Forward Surge Current

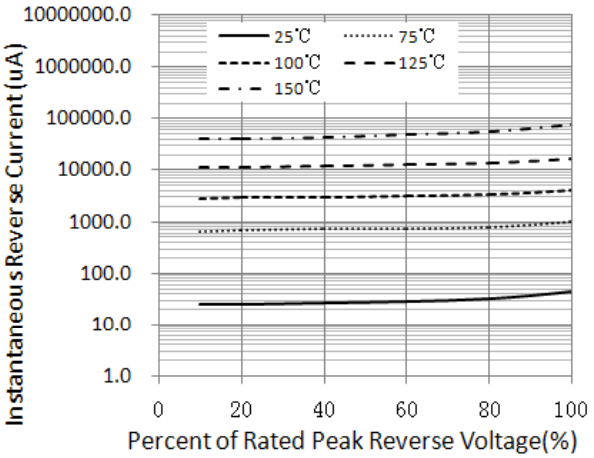


Figure 4. Typical Reverse Characteristics

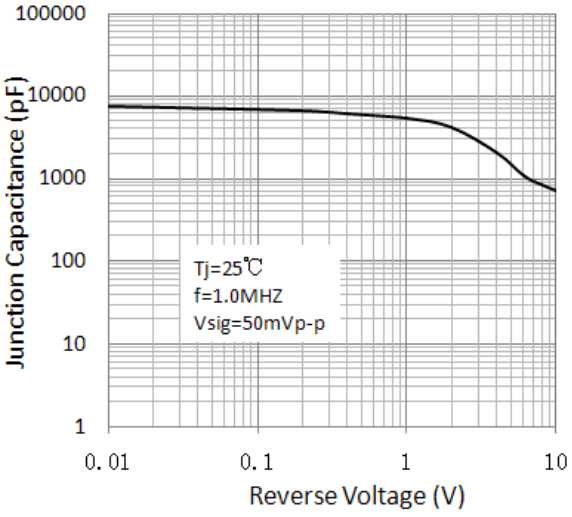
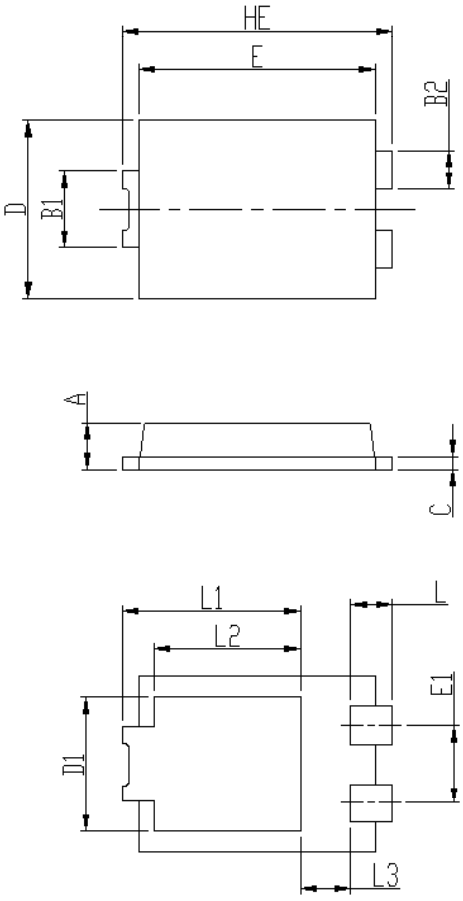


Figure 5. Typical Junction Capacitance

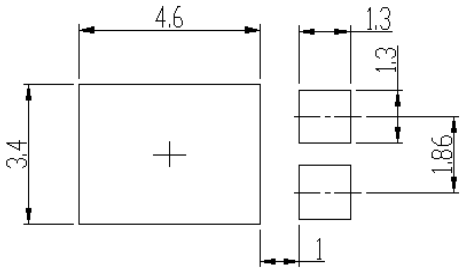
Package Outline Dimensions

in inches (millimeters)



DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
HE	6.4	6.6	0.252	0.260
E	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
A	1.05	1.2	0.041	0.047
C	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 Typ.		0.139 Typ.	
L3	1.1	1.4	0.043	0.055
D1	3	3.3	0.118	0.130
E1	1.86 Typ.		0.073 Typ.	

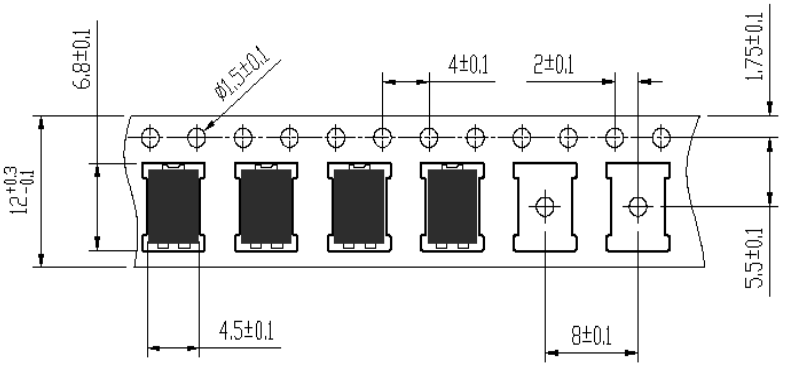
Soldering footprint



Packing Information

Packing quantities:
5000 pcs/Reel，12mm Tape, 13" Reel

Tape & Reel Specification



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