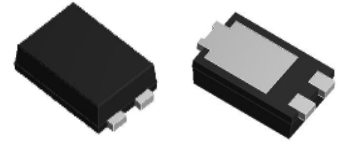
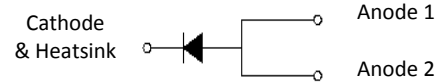


Features

- 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 | 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°C | 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°C | | 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°C | I _R | 0.05 | 0.5 | mA |
| | | T _A =125°C | | 18 | 200 | |
| Typical junction capacitance | 4.0 V, 1 MHz | | C _J | 2.0 | | nF |
| Typical thermal resistance | junction to mount | | R _{θJM} ¹⁾ | 1.0 | | °C/W |

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

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

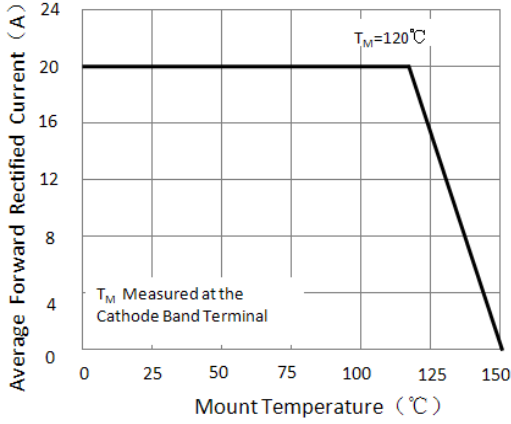


Figure 1. Forward Current Derating Curve

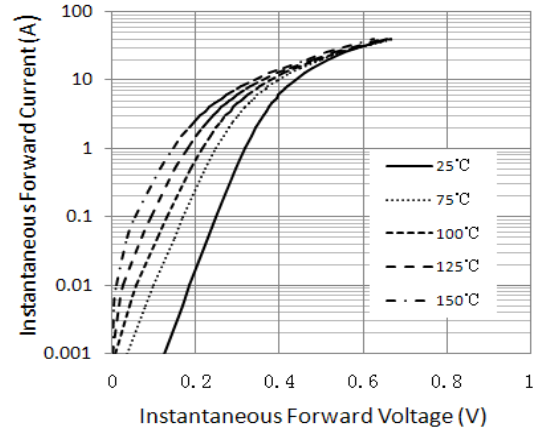


Figure 2. Typical Instantaneous Forward Characteristics

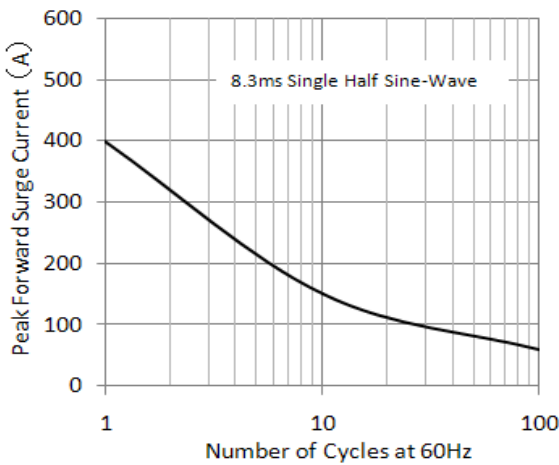


Figure 3. Maximum Non-Repetitive Peak Forward Surge Current

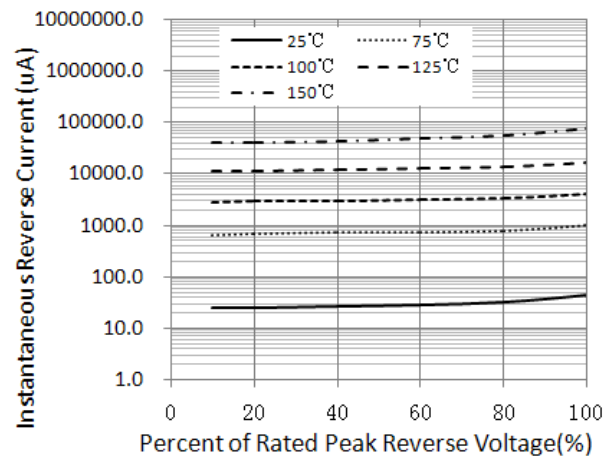


Figure 4. Typical Reverse Characteristics

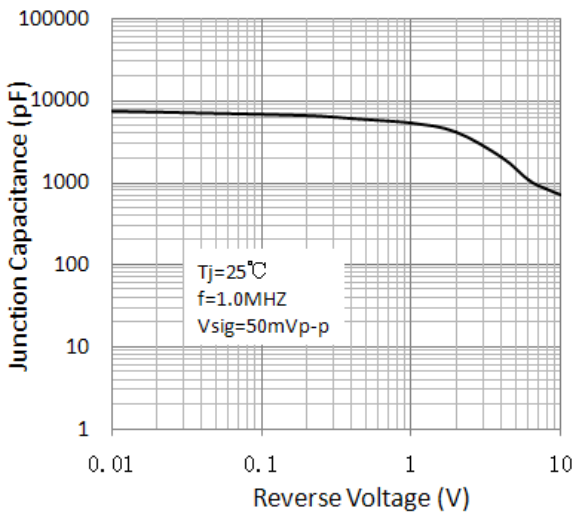
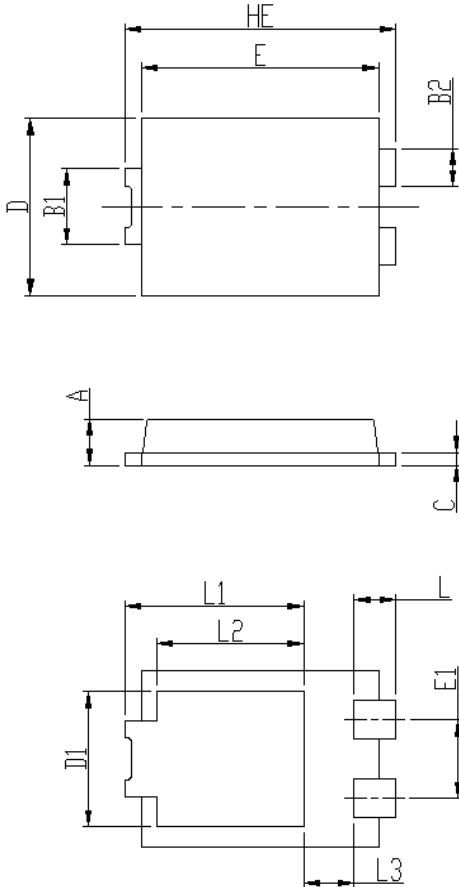


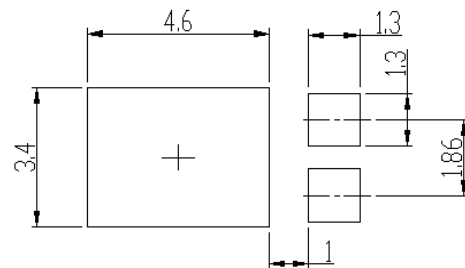
Figure 5. Typical Junction Capacitance

Package Outline Dimensions



| 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

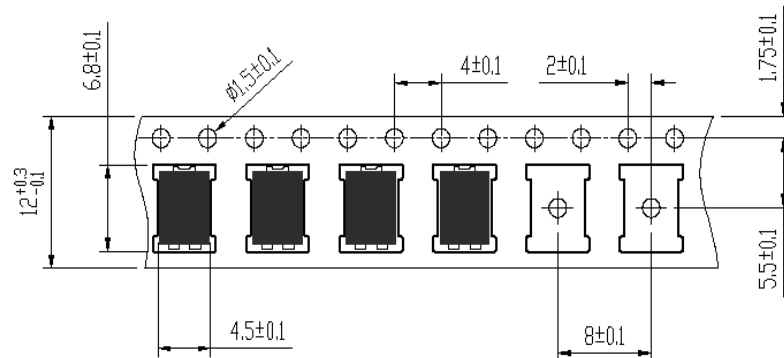


Packing Information

Packing quantities:

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

Tape & Reel Specification





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