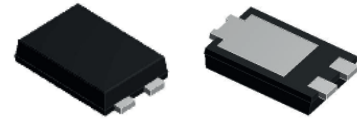


Features

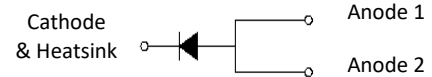
- Low leakage current
- Schottky barrier diode
- Low forward voltage drop
- Very low profile-typical height of 1.1 mm
- Moisture sensitivity: level 1, per J-STD-020
- Halogen-free according to IEC 61249-2-21 definition
- High temperature soldering guaranteed: 260°C/10 seconds



RoHS
COMPLIANT



TO-277



Applications

For use of fast switching in RF module, lighting, cellular phone, portable device, power supplies and other consumer applications.

Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

| Parameter | Symbol | Value | Unit |
|--|-----------------|-------------|--------------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 60 | V |
| Maximum RMS Voltage | V_{RMS} | 42 | V |
| Maximum DC Blocking Voltage | V_{DC} | 60 | V |
| Maximum Average Forward Rectified Current | $I_{F(AV)}$ | 10 | A |
| Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load | I_{FSM} | 280 | A |
| Thermal Resistance, Junction to Ambient ¹ | $R_{\theta JA}$ | 40 | $^\circ\text{C/W}$ |
| Thermal Resistance, Junction to Case ¹ | $R_{\theta JC}$ | 15 | $^\circ\text{C/W}$ |
| Thermal Resistance, Junction to Lead ¹ | $R_{\theta JL}$ | 7 | $^\circ\text{C/W}$ |
| Operating Junction Temperature Range | T_J | -55 to +150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -55 to +150 | $^\circ\text{C}$ |

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

| Parameter | Symbol | Test Conditions | Typ | Max | Unit |
|---------------------------------|--------|-------------------------|------|------|------|
| Forward Drop Voltage | V_F | $I_F=1\text{A}$ | 0.30 | 0.35 | V |
| | | $I_F=2\text{A}$ | | | |
| | | $I_F=10\text{A}$ | | | |
| | | $I_F=1\text{A}$ | 0.20 | - | |
| | | $I_F=2\text{A}$ | | | |
| | | $I_F=10\text{A}$ | | | |
| Reverse Leakage Current @ V_R | I_R | $T_J=25^\circ\text{C}$ | 0.05 | 0.15 | mA |
| | | $T_J=125^\circ\text{C}$ | 16 | 30 | |
| Typical Junction Capacitance | C_J | 4.0V, 1MHz | 540 | | pF |

Note:

1. Mounted on copper pad area of 30 x 30mm to each terminal.

Ratings and Characteristics Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

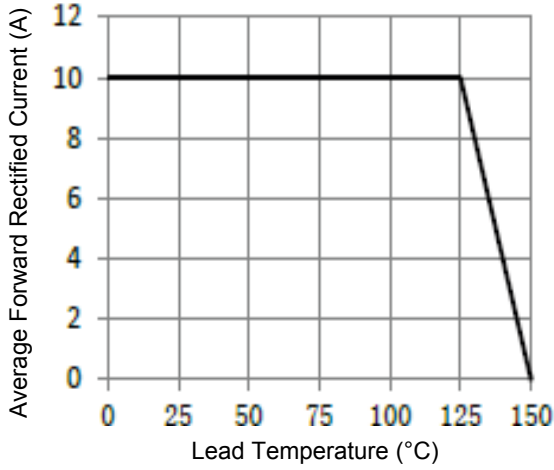


Figure 1. Forward Current Derating Curve

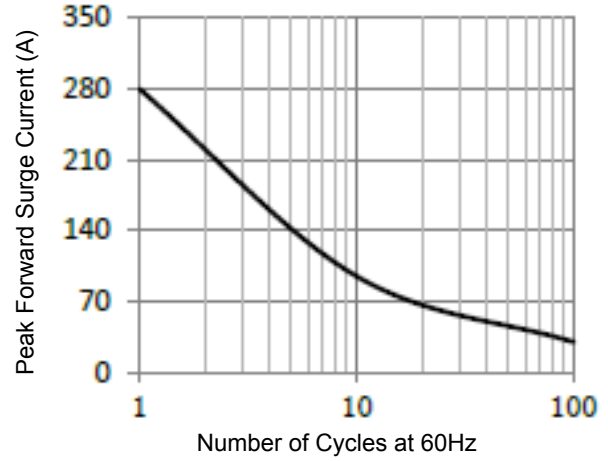


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

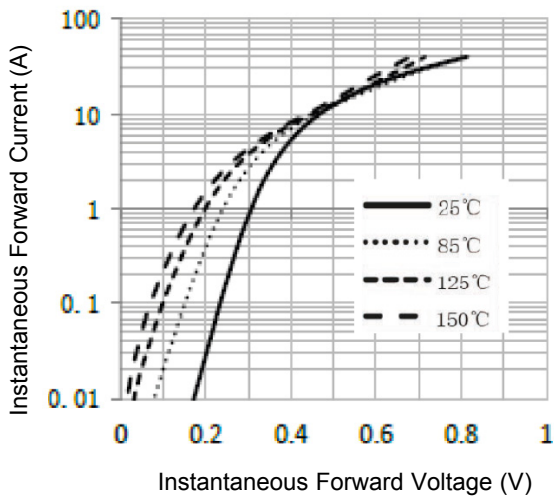


Figure 3. Typical Instantaneous Forward Characteristics

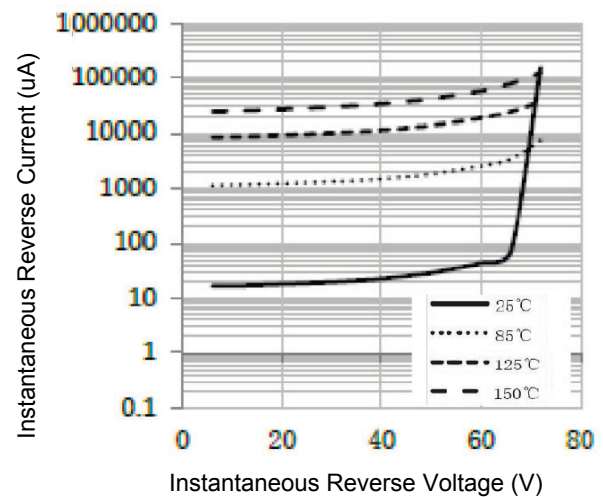


Figure 4. Typical Reverse Characteristics

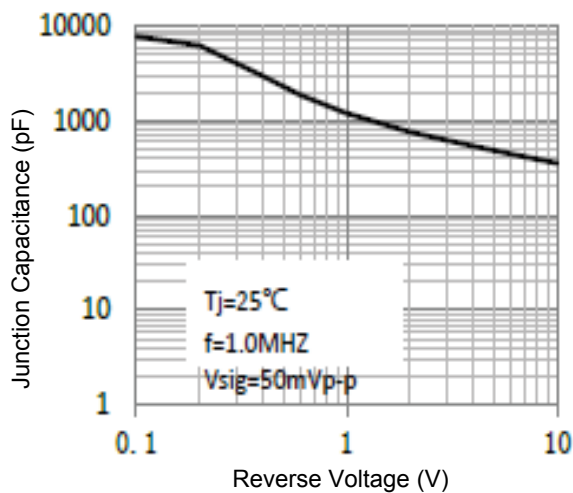
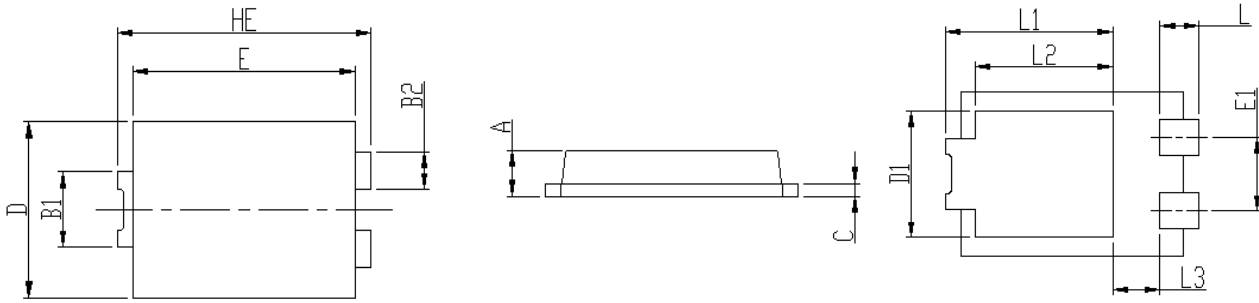


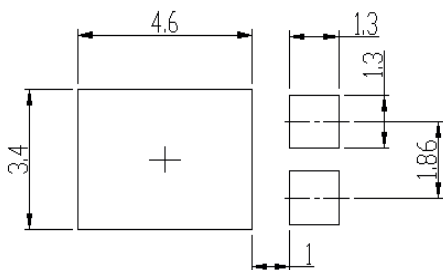
Figure 5. Typical Junction Capacitance

Package Outline Dimensions (TO-277)



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min | Max | Min | Max |
| HE | 6.400 | 6.600 | 0.252 | 0.260 |
| E | 5.600 | 5.800 | 0.220 | 0.228 |
| D | 4.100 | 4.300 | 0.161 | 0.169 |
| B1 | 1.700 | 1.900 | 0.067 | 0.075 |
| B2 | 0.800 | 1.000 | 0.031 | 0.039 |
| A | 1.050 | 1.200 | 0.041 | 0.047 |
| C | 0.300 | 0.400 | 0.012 | 0.016 |
| L | 0.850 | 1.100 | 0.033 | 0.043 |
| L1 | 4.200 | 4.400 | 0.165 | 0.173 |
| L2 | 3.520 TYP | | 0.139 TYP | |
| L3 | 1.100 | 1.400 | 0.043 | 0.055 |
| D1 | 3.000 | 3.300 | 0.118 | 0.130 |
| E1 | 1.860 TYP | | 0.073 TYP | |

Recommended Pad Layout



Unit: mm

Order Information

| Device | Package | Marking | Carrier | Quantity |
|-----------|---------|---------|-------------|------------------|
| GSGC1060S | TO-277 | C1060S | Tape & Reel | 5,000 Pcs / Reel |

For more information, please contact us at: inquiry@goodarksemi.com