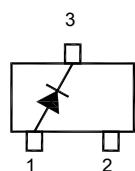


Features

- Very low forward voltage drop
- High conductance



SOT-23



Schematic Diagram

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

| Parameter | Symbol | Value | Unit |
|--|-----------------|-------------|------|
| Repetitive Peak Reverse Voltage | V_{RRM} | 40 | V |
| Maximum DC Blocking Voltage | V_R | 40 | V |
| Average Rectified Forward Current | $I_{F(AV)}$ | 0.75 | A |
| Non-Repetitive Peak Forward Surge Current ($t=8.3\text{ms}$) | I_{FSM} | 5.5 | A |
| Power Dissipation | P_{tot} | 350 | mW |
| Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | 350 | °C/W |
| Operating and Storage Temperature Range | T_J, T_{stg} | -55 to +150 | °C |

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

| Parameter | Symbol | Test Conditions | Min. | Typ. | Max. | Unit |
|---------------------------|-------------|--------------------------------|------|------|------|------|
| Reverse Breakdown Voltage | $V_{(BR)R}$ | $I_R=300\mu\text{A}$ | 40 | - | - | V |
| Forward Voltage | V_F | $I_F=50\text{mA}$ | - | - | 280 | mV |
| | | $I_F=100\text{mA}$ | - | - | 310 | |
| | | $I_F=250\text{mA}$ | - | - | 350 | |
| | | $I_F=500\text{mA}$ | - | - | 420 | |
| | | $I_F=750\text{mA}$ | - | - | 490 | |
| | | $I_F=1\text{A}$ | - | - | 540 | |
| | | $I_F=1.5\text{A}$ | - | - | 650 | |
| Reverse Current | I_R | $V_R=30\text{V}$ | - | - | 100 | μA |
| Total Capacitance | C_T | $V_R=0\text{V}, f=1\text{MHz}$ | - | 150 | - | pF |

Electrical Characteristic Curves

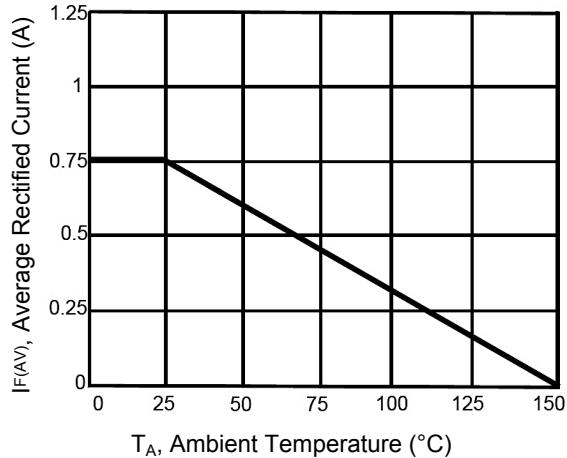


Figure 1. Average Rectified Current Derating Curve

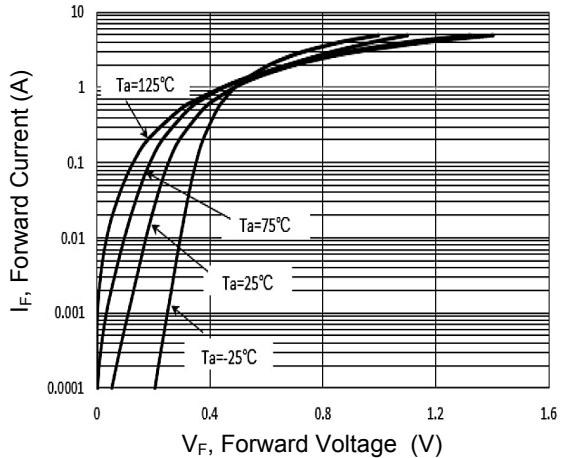


Figure 2. Forward Characteristic Curve

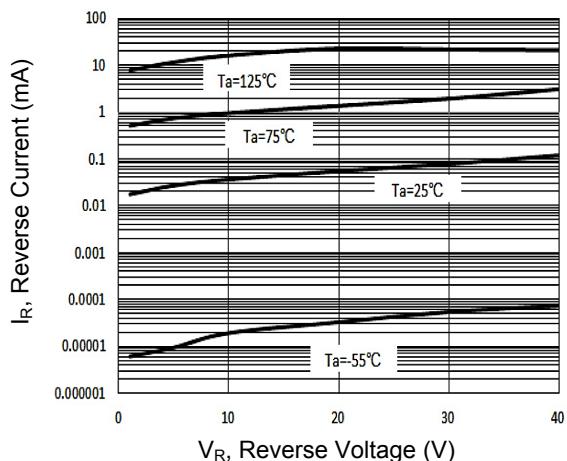


Figure 3. Reverse Characteristic Curve

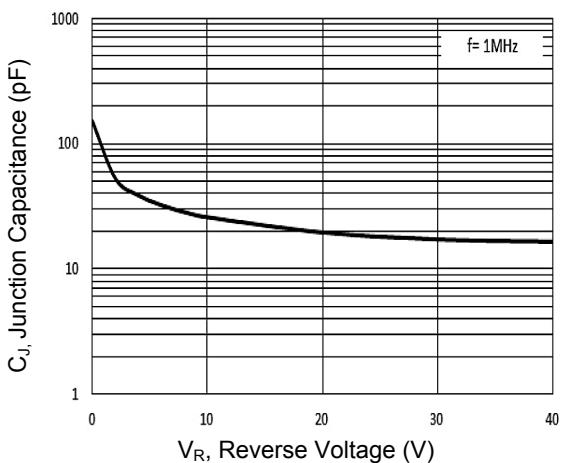
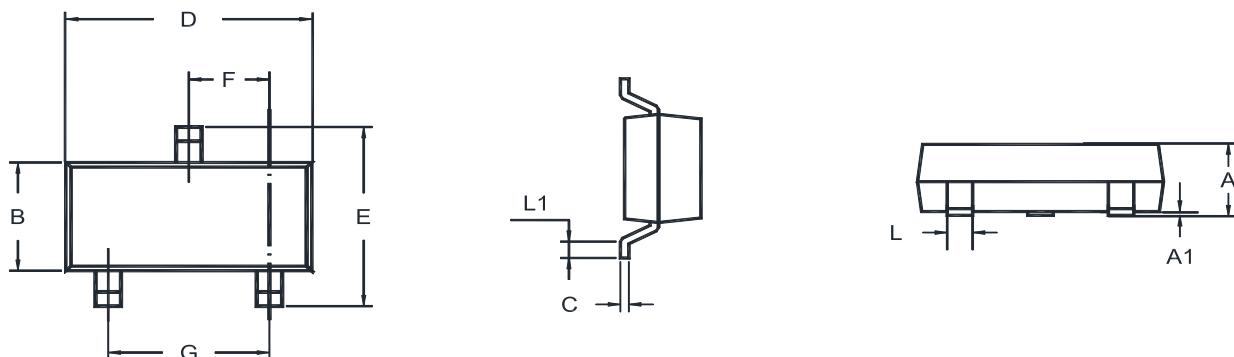


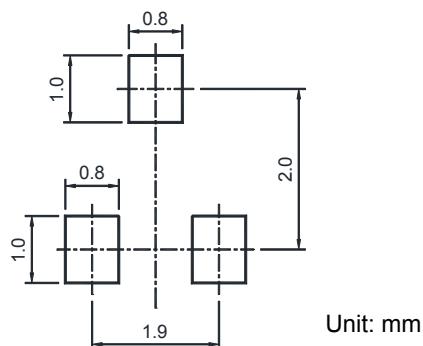
Figure 4. Junction Capacitance

Package Outline Dimensions (SOT-23)



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min | Max | Min | Max |
| A | 0.890 | 1.200 | 0.035 | 0.047 |
| A1 | 0.013 | 0.100 | 0.001 | 0.004 |
| B | 1.200 | 1.400 | 0.047 | 0.055 |
| C | 0.080 | 0.190 | 0.003 | 0.007 |
| D | 2.800 | 3.040 | 0.110 | 0.120 |
| E | 2.200 | 2.600 | 0.087 | 0.102 |
| F | 0.890 | 1.020 | 0.035 | 0.040 |
| G | 1.780 | 2.040 | 0.070 | 0.080 |
| L | 0.370 | 0.510 | 0.015 | 0.020 |
| L1 | 0.200 MIN | | 0.008 MIN | |

Recommended Pad Layout



Order Information

| Device | Package | Marking | Carrier | Quantity |
|----------|---------|---------|-------------|------------------|
| GSBAT750 | SOT-23 | K77 | Tape & Reel | 3,000 Pcs / Reel |