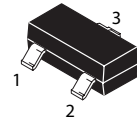


Surface Mount Schottky Barrier Rectifier

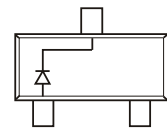
* We declare that the material of product compliance with RoHS requirements.

(Pb) Lead(Pb)-Free

- * Very Low Forward Voltage Drop
- * High Conductance
- * For Use in DC-DC Converter, PCMCIA, and Mobile Telecommunications Applications



SOT-23



TOP VIEW

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

| Characteristic | Symbol | Value | Unit |
|---|---------------------------------|-------------|------------------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V_{RRM} V_{RWM} V_R | 40 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 28 | V |
| Average Rectified Current | I_O | 0.75 | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load | I_{FSM} | 5.5 | A |
| Power Dissipation | P_d | 350 | mW |
| Operating Junction Temperature Range | T_j | +125 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -55 to +125 | $^\circ\text{C}$ |

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

| Characteristic | Symbol | Min | Typ | Max | Unit |
|--|-------------|-----|-----|---|---------------|
| Reverse Breakdown Voltage $I_R = 300\mu\text{A}$ | $V_{(BR)R}$ | 40 | - | - | V |
| Forward Voltage $I_F = 50\text{mA}$ $I_F = 100\text{mA}$ $I_F = 250\text{mA}$ $I_F = 500\text{mA}$ $I_F = 750\text{mA}$ $I_F = 1000\text{mA}$ $I_F = 1500\text{mA}$ | V_F | - | - | 280 310 350 420 490 540 650 | mV |
| Reverse Current $V_R = 30\text{V}$ | I_R | - | - | 100 | μA |
| Total Capacitance $V_R = 0\text{V}, f = 1.0\text{MHz}$ $V_R = 25\text{V}, f = 1.0\text{MHz}$ | C_T | - | - | 175 25 | pF |

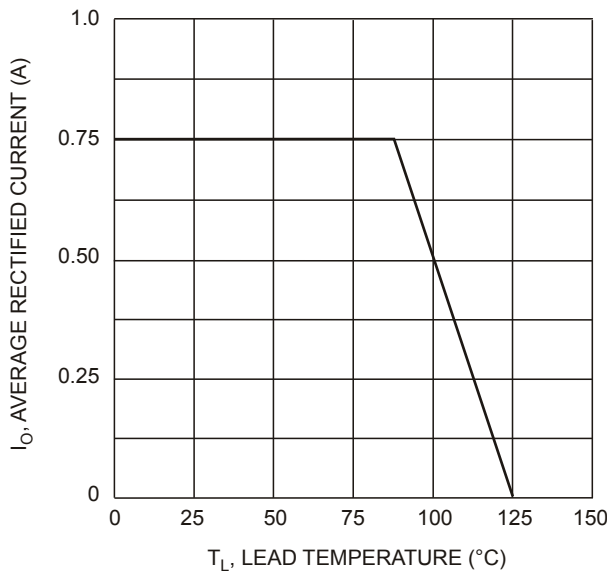


Fig. 1 Forward Current Derating Curve

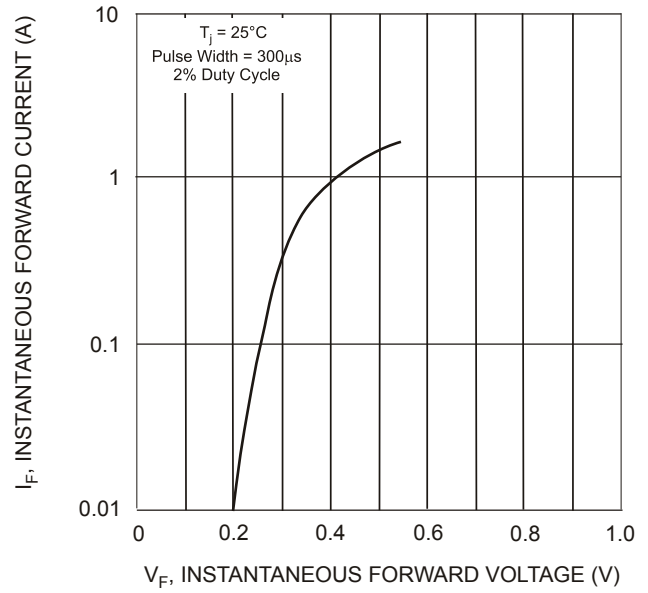


Fig. 2 Typical Forward Characteristics

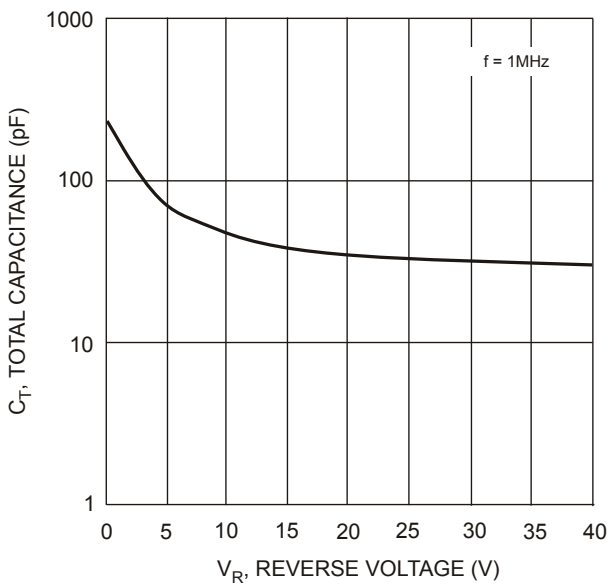


Fig. 3 Total Capacitance vs Reverse Voltage

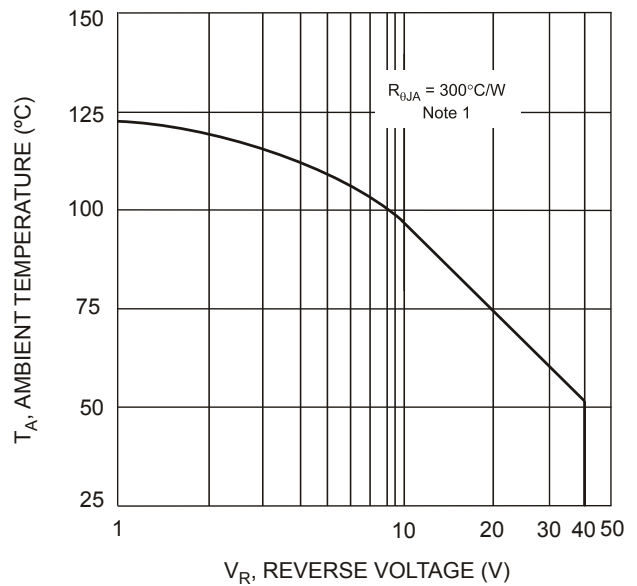
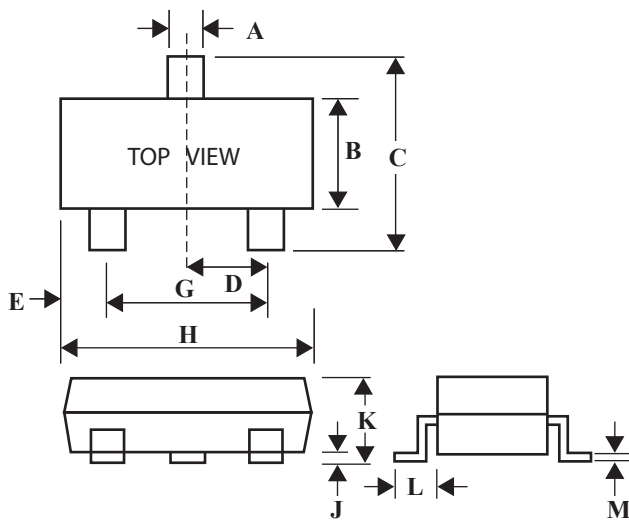


Fig. 4 Typical Safe Operating Area

Note: 1. Assumed application thermal conditions. $R_{\theta JA}$ varies depending on application.

SOT-23 Package Outline Dimensions

Unit:mm



| Dim | Min | Max |
|-----|-------|------|
| A | 0.35 | 0.51 |
| B | 1.19 | 1.80 |
| C | 2.10 | 3.00 |
| D | 0.85 | 1.05 |
| E | 0.46 | 1.00 |
| G | 1.70 | 2.10 |
| H | 2.70 | 3.10 |
| J | 0.01 | 0.13 |
| K | 0.89 | 1.60 |
| L | 0.30 | 0.61 |
| M | 0.076 | 0.25 |