

Small Signal Diode

RoHS
Compliant



Features

- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- For general purpose switching applications
- High conductance

Mechanical Data

| | |
|-----------|--|
| Case | : SOT-23, moulded plastic |
| Terminals | : Solderable per MIL-STD-202, Method 208 |
| Polarity | : See diagram |
| Marking | : A7 |
| Weight | : 0.008 g (approximately) |

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

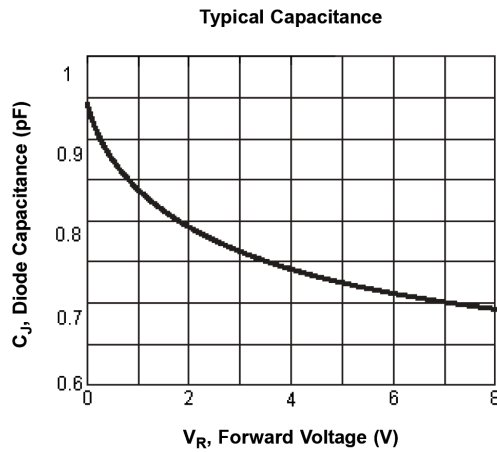
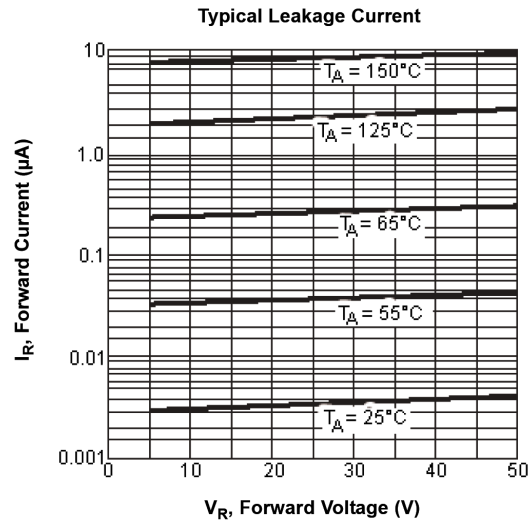
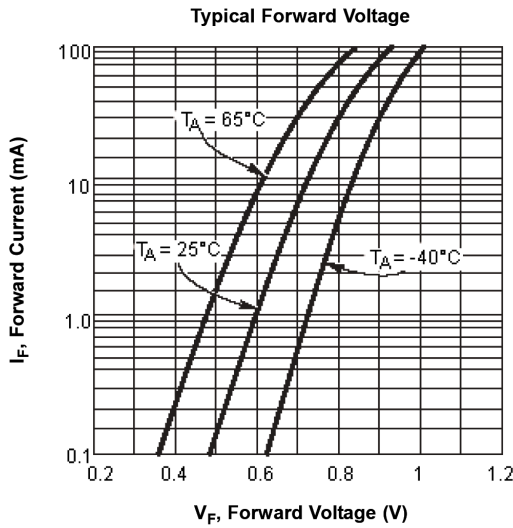
| Characteristic | Symbol | Values | Units |
|--|------------------|------------|---------------------------|
| Reverse Voltage | V_R | 75 | V |
| Forward Current | I_F | 200 | mA |
| Peak Forward Surge Current | I_{FM} (surge) | 500 | |
| Power Dissipation | P_D | 225 | mW |
| Thermal Resistance Junction to Ambient Air | $R_{\theta JA}$ | 556 | $^\circ\text{C}/\text{W}$ |
| Junction Temperature | T_J | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -55 to 150 | |

Electrical Characteristics

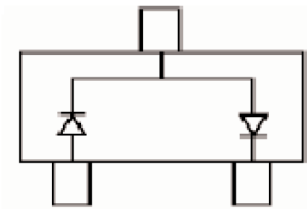
| Characteristic | Symbol | Minimum | Maximum | Units |
|--|----------|---------|---------|---------------|
| Reverse Breakdown Voltage $I_R = 100\mu\text{A}$ | V_R | 75 | - | V |
| Forward Voltage $I_F = 1.0\text{ mA}$ | V_F | - | 0.715 | |
| $I_F = 10\text{ mA}$ | | | 0.855 | |
| $I_F = 50\text{ mA}$ | | | 1 | |
| $I_F = 150\text{ mA}$ | | | 1.25 | |
| Reverse Current $V_R = 25\text{V}$ | I_R | - | 30 | nA |
| $V_R = 75\text{V}$ | | | 2 | μA |
| Capacitance between Terminals $V_R = 0, f = 1\text{MHz}$ | C_J | - | 1.5 | pF |
| Reverse Recovery Time (Note 1) | t_{rr} | - | 6 | nS |

Note 1: Reverse recovery test conditions : $I_F = I_R = 10\text{mA}$, $I_{rr} = 0.1 \times I_R$, $R_L = 100\Omega$

Ratings and Characteristic Curves



Connection Diagram

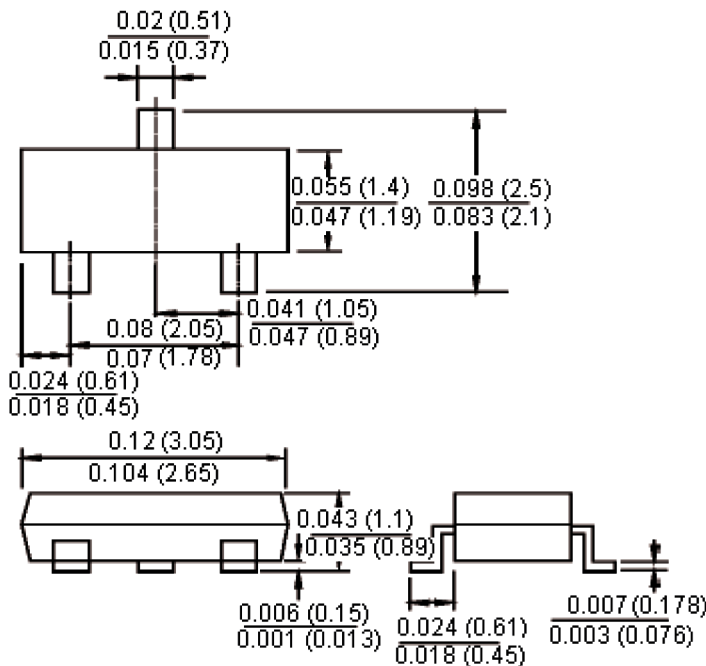


Small Signal Diode



Dimension:

SOT-23



Dimensions : Inches (Millimetres)

Part Number Table

| Description | Part Number |
|---------------------------------------|-------------|
| Diode, Dual, Small Signal, 75V, SOT23 | BAV99+ |

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