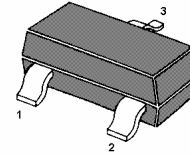
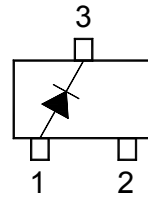


BAT400D

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER



1. ANODE 3. CATHODE

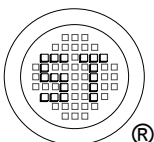
Marking Code: **PK**
SOT-23 Plastic Package

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

| Parameter | Symbol | Value | Unit |
|---|-----------------|-------------|---------------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 40 | V |
| Working Peak Reverse Voltage | V_{RWM} | 40 | V |
| DC Blocking Voltage | V_R | 40 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 28 | V |
| Average Rectified Current | I_O | 0.5 | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 3 | A |
| Power Dissipation | P_d | 480 | mW |
| Typical Thermal Resistance, Junction to Ambient Air | $R_{\theta JA}$ | 286 | $^\circ\text{C}/\text{W}$ |
| Operating and Storage Temperature Range | T_{opr}, T_s | -40 to +125 | $^\circ\text{C}$ |

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

| Parameter | Symbol | Min. | Typ. | Max. | Unit |
|--|-------------|--------|-----------|-------------|---------------|
| Forward Voltage at $I_F = 10\text{ mA}$ at $I_F = 500\text{ mA}$ | V_F | - - | - - | 0.3 0.55 | V |
| Reverse Breakdown Voltage at $I_R = 1\text{ mA}$ | $V_{(BR)R}$ | 40 | - | - | V |
| Reverse Current at $V_R = 10\text{ V}$ at $V_R = 30\text{ V}$ | I_R | - - | - - | 30 50 | μA |
| Total Capacitance at $V_R = 0\text{ V}$, $f = 1\text{ MHz}$ at $V_R = 10\text{ V}$, $f = 1\text{ MHz}$ | C_{tot} | - - | 125 20 | - - | pF |



SEMTECH ELECTRONICS LTD.

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Dated : 03/12/2005

BAT400D

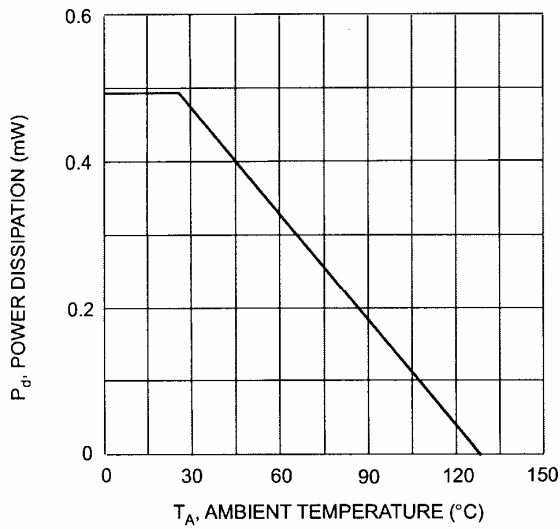


Fig. 1 Forward Current Derating Curve

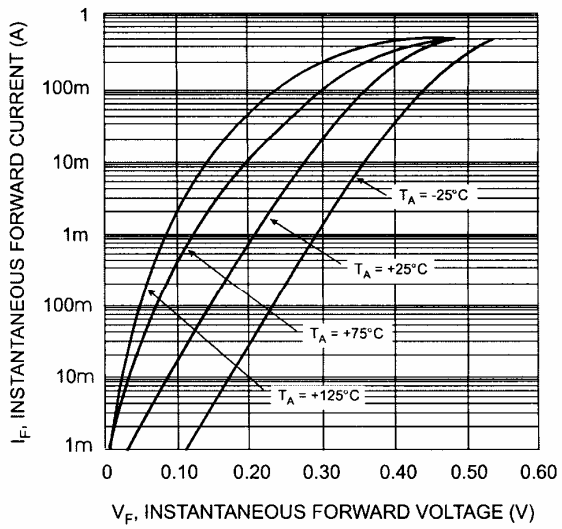


Fig. 2 Typical Forward Characteristics

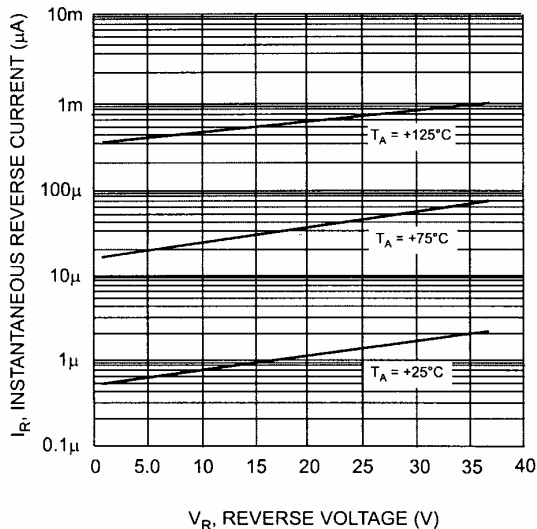


Fig. 3 Typical Reverse Characteristics

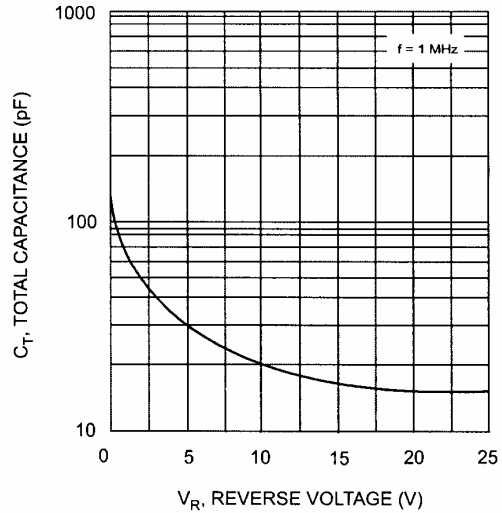
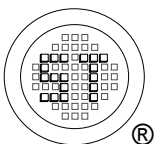


Fig. 4 Typical Total Capacitance vs. Reverse Voltage



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