## Maximum Ratings (@$T_A$ = +25°C, unless otherwise specified.)

| Characteristic | Symbol | Value | Unit |
|---|---|---|---|
| Non-Repetitive Peak Reverse Voltage | $V_{RM}$ | 85 | V |
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 80 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 57 | V |
| Forward Continuous Current | $I_{FM}$ | 300 | mA |
| Average Rectified Output Current | $I_O$ | 100 | mA |
| Non-Repetitive Peak Forward Surge Current @ t = 1.0μs | $I_{FSM}$ | 2.0 | A |

## Thermal Characteristics

| Characteristic | Symbol | Value | Unit |
|---|---|---|---|
| Power Dissipation (Note 5) | $P_D$ | 150 | mW |
| Thermal Resistance Junction to Ambient Air (Note 5) | $R_{\theta JA}$ | 833 | °C/W |
| Operating and Storage Temperature Range | $T_J$ , $T_{STG}$ | -65 to +150 | °C |

## Electrical Characteristics (@$T_A$ = +25°C, unless otherwise specified.)

| Characteristic | Symbol | Min | Typ | Max | Unit | Test Condition |
|---|---|---|---|---|---|---|
| Reverse Breakdown Voltage (Note 6) | $V_{(BR)R}$ | 80 | — | — | V | $I_R$ = 100μA |
| Forward Voltage | $V_F$ | —<br>—<br>— | 0.62<br>0.74<br>0.94 | 0.7<br>0.82<br>1.20 | V | $I_F$ = 1.0mA<br>$I_F$ = 10mA<br>$I_F$ = 100mA |
| Leakage Current (Note 6) | $I_R$ | —<br>—<br>—<br>—<br>—<br>— | 5<br>—<br>—<br>—<br>—<br>— | 10.0<br>0.4<br>0.1<br>0.6<br>0.2<br>0.8 | nA<br>μA<br>μA<br>μA<br>μA<br>μA | $V_R$ = 5V<br>$V_R$ = 5V, $T_J$ = +85°C<br>$V_R$ = 30V<br>$V_R$ = 30V, $T_J$ = +85°C<br>$V_R$ = 80V<br>$V_R$ = 80V, $T_J$ = +85°C |
| Total Capacitance | $C_T$ | — | 0.5 | 2.5 | pF | $V_R$ = 0, f = 1.0MHz |
| Reverse Recovery Time | $t_{rr}$ | —<br>— | —<br>— | 4.0<br>4.0 | ns<br>ns | $I_F$ = 10mA, $V_R$ = 6V<br>$I_F$ = $I_R$ = 10mA,<br>$I_{rr}$ = 0.1 x $I_R$, $R_L$ = 100Ω |

Notes: 5. Part mounted on FR-4 PC board with recommended pad layout, which can be found on our website at http://www.diodes.com.
6. Short duration pulse test used to minimize self-heating effect.

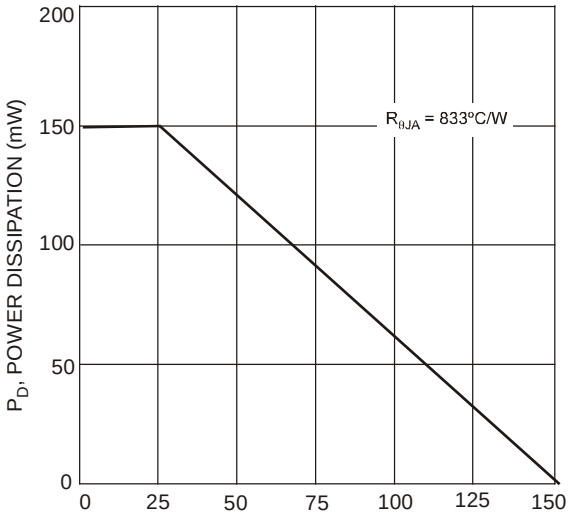



Fig. 1 Power Derating Curve

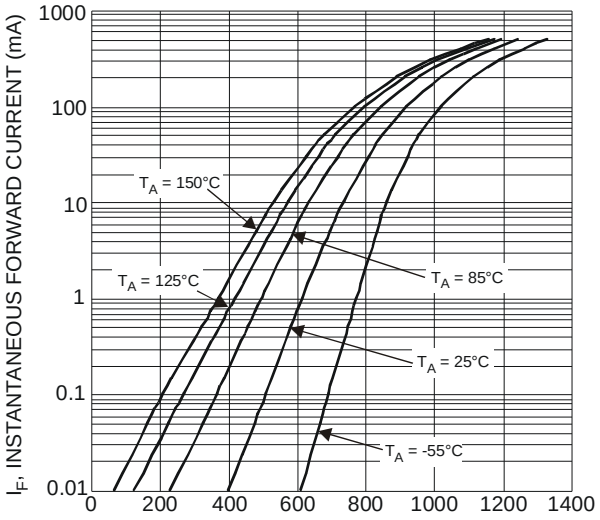



Figure 2 Typical Forward Characteristics

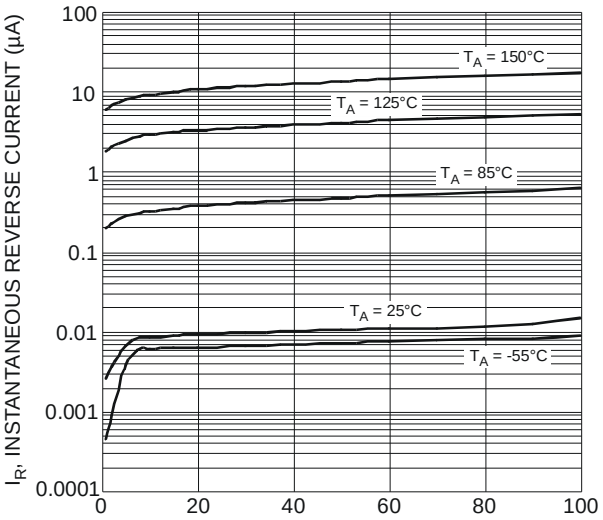



Figure 3 Typical Reverse Characteristics

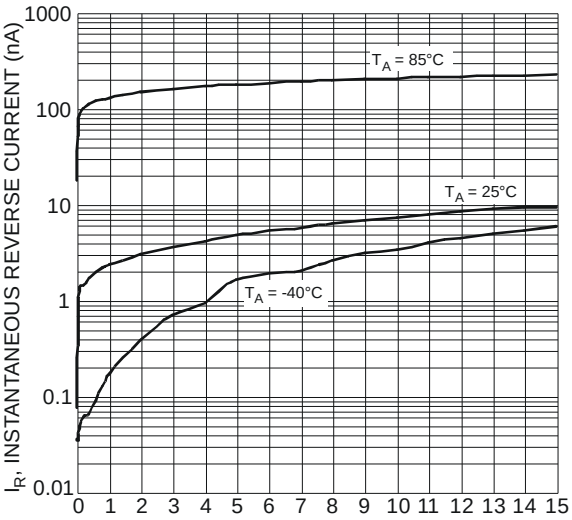



Figure 4 Typical Reverse Characteristics

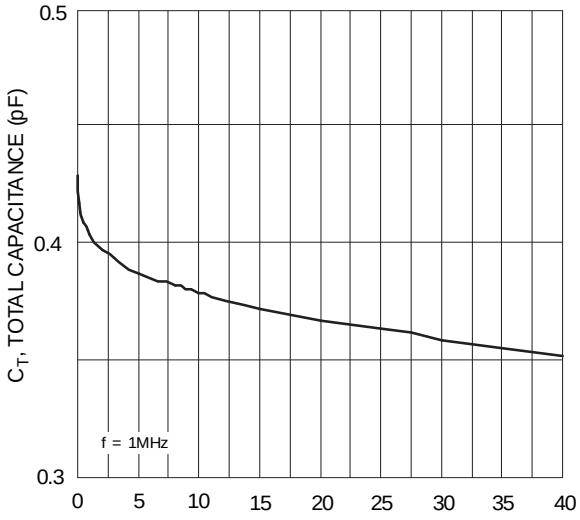
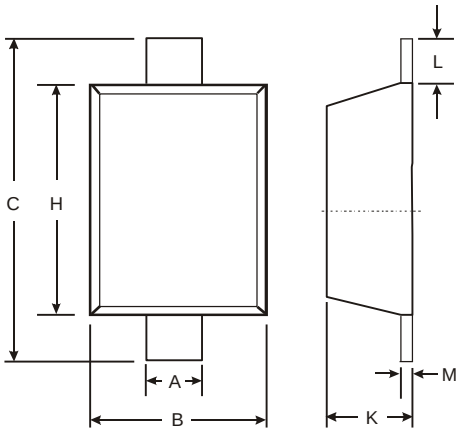



Figure 5 Total Capacitance vs. Reverse Voltage

## Package Outline Dimensions

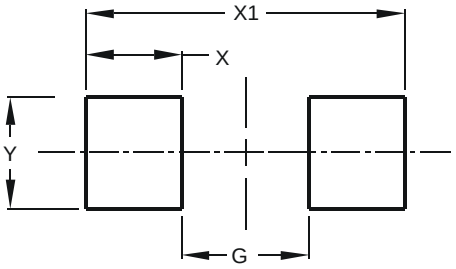
Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for the latest version.




| SOD523 | | |
|---|---|---|
| **Dim** | **Min** | **Max** |
| **A** | 0.25 | 0.35 |
| **B** | 0.70 | 0.90 |
| **C** | 1.50 | 1.70 |
| **H** | 1.10 | 1.30 |
| **K** | 0.55 | 0.65 |
| **L** | 0.10 | 0.30 |
| **M** | 0.10 | 0.12 |
| **All Dimensions in mm** | | |

## Suggested Pad Layout

Please see AP02001 at http://www.diodes.com/datasheets/ap02001.pdf for the latest version.




| Dimensions | Value (in mm) |
|---|---|
| **G** | 0.80 |
| **X** | 0.60 |
| **X1** | 2.00 |
| **Y** | 0.70 |

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