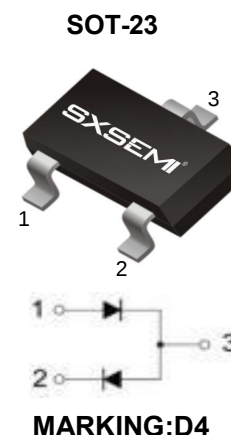


**FEATURES**

- | Fast Switching Speed
- | For General Purpose Switching Applications
- | High Conductance


**Maximum Ratings @Ta=25°C**

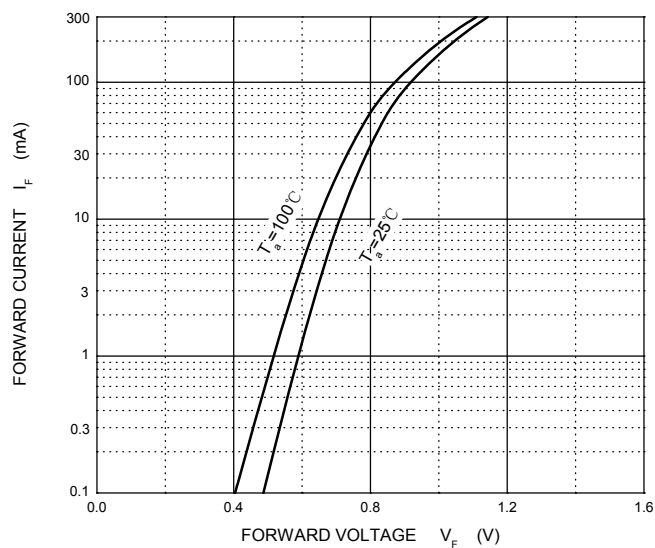
| Parameter                                                                                   | Symbol                          | Limit    | Unit |
|---------------------------------------------------------------------------------------------|---------------------------------|----------|------|
| Non-Repetitive Peak Reverse Voltage                                                         | $V_{RM}$                        | 100      | V    |
| Peak Repetitive Peak Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 100      | V    |
| RMS Reverse Voltage                                                                         | $V_{R(RMS)}$                    | 72       | V    |
| Forward Continuous Current                                                                  | $I_{FM}$                        | 300      | mA   |
| Average Rectified Output Current                                                            | $I_o$                           | 200      | mA   |
| Non-Repetitive Peak Forward Surge Current @ t=8.3ms                                         | $I_{FSM}$                       | 2.0      | A    |
| Power Dissipation                                                                           | $P_D$                           | 350      | mW   |
| Thermal Resistance Junction to Ambient                                                      | $R_{\theta JA}$                 | 357      | °C/W |
| Operation Junction and Storage Temperature Range                                            | $T_J, T_{STG}$                  | -55~+150 | °C   |

**Electrical Ratings @Ta=25°C**

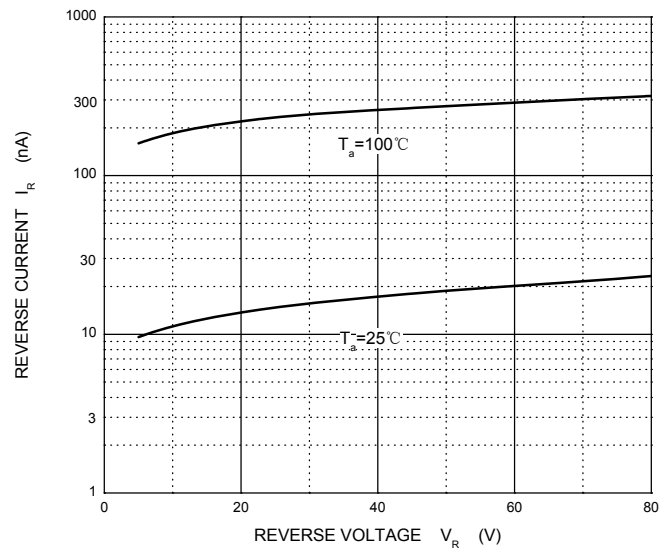
| Parameter                     | Symbol      | Min | Typ | Max | Unit    | Conditions                                           |
|-------------------------------|-------------|-----|-----|-----|---------|------------------------------------------------------|
| Reverse breakdown voltage     | $V_{(BR)1}$ | 100 |     |     | V       | $I_R=100\mu A$                                       |
|                               | $V_{(BR)2}$ | 75  |     |     | V       | $I_R=5\mu A$                                         |
| Forward voltage               | $V_F$       |     |     | 1   | V       | $I_F=10mA$                                           |
| Reverse current               | $I_{R1}$    |     |     | 5   | $\mu A$ | $V_R=75V$                                            |
|                               | $I_{R2}$    |     |     | 25  | nA      | $V_R=25V$                                            |
| Capacitance between terminals | $C_T$       |     |     | 4   | pF      | $V_R=0V, f=1MHz$                                     |
| Reverse recovery time         | $t_{rr}$    |     |     | 4   | ns      | $I_F=I_R=10mA, V_R=6V, I_{rr}=0.1I_R, R_L=100\Omega$ |

## Typical Characteristics

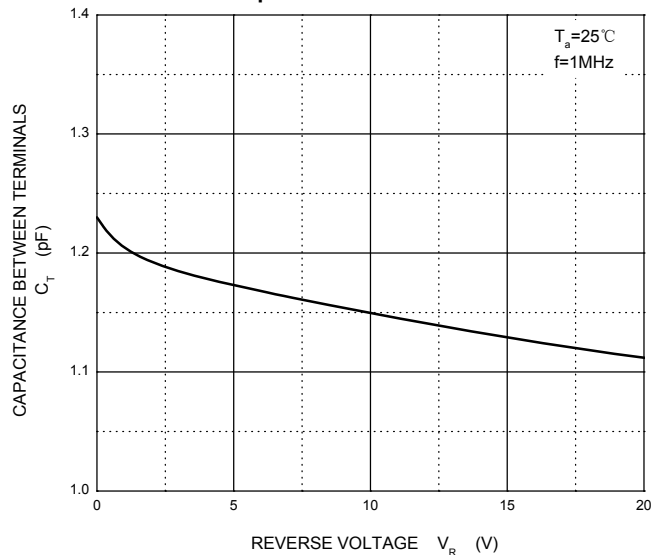
**Forward Characteristics**



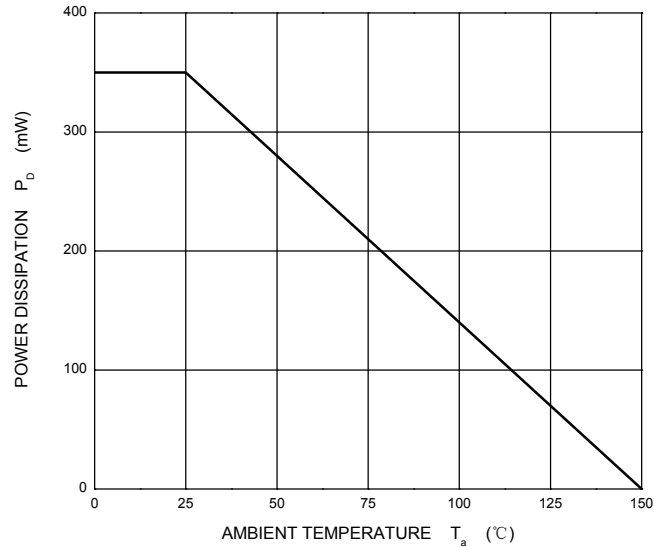
**Reverse Characteristics**



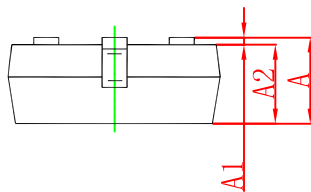
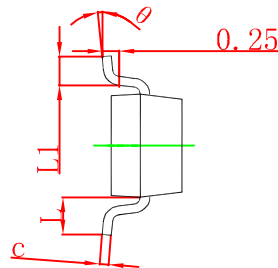
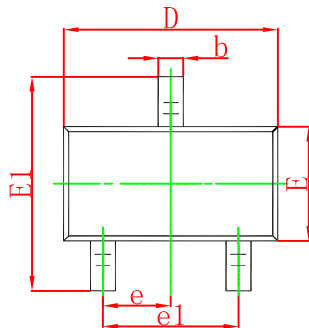
**Capacitance Characteristics**



**Power Derating Curve**

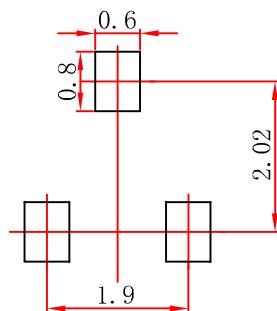


## SOT-23 package Outline Dimensions



| Symbol   | Dimensions In Millimeters |       | Dimensions In Inches |       |
|----------|---------------------------|-------|----------------------|-------|
|          | Min                       | Max   | Min                  | Max   |
| A        | 0.900                     | 1.150 | 0.035                | 0.045 |
| A1       | 0.000                     | 0.100 | 0.000                | 0.004 |
| A2       | 0.900                     | 1.050 | 0.035                | 0.041 |
| b        | 0.300                     | 0.500 | 0.012                | 0.020 |
| c        | 0.080                     | 0.150 | 0.003                | 0.006 |
| D        | 2.800                     | 3.000 | 0.110                | 0.118 |
| E        | 1.200                     | 1.400 | 0.047                | 0.055 |
| E1       | 2.250                     | 2.550 | 0.089                | 0.100 |
| e        | 0.950 TYP                 |       | 0.037 TYP            |       |
| e1       | 1.800                     | 2.000 | 0.071                | 0.079 |
| L        | 0.550 REF                 |       | 0.022 REF            |       |
| L1       | 0.300                     | 0.500 | 0.012                | 0.020 |
| $\theta$ | 0°                        | 8°    | 0°                   | 8°    |

## SOT-23 Suggested Pad Layout



### Note:

1. Controlling dimension in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.