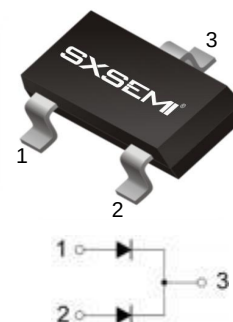


### FEATURES

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance

### SOT-23



MARKING:JS3

### Maximum Ratings @Ta=25℃

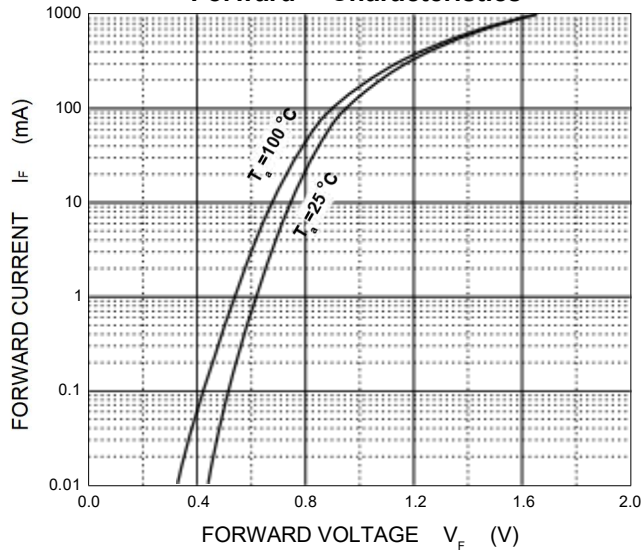
| Parameter                                          | Symbol          | Limit    | Unit |
|----------------------------------------------------|-----------------|----------|------|
| Repetitive peak reverse voltage                    | $V_{RRM}$       | 250      | V    |
| Working peak reverse voltage                       | $V_{RWM}$       |          |      |
| DC blocking voltage                                | $V_R$           |          |      |
| Forward continuous current                         | $I_{FM}$        | 400      | mA   |
| Average rectified output current                   | $I_O$           | 200      | mA   |
| Non-Repetitive Peak Forward Surge Current @t=8.3ms | $I_{FSM}$       | 2.5      | A    |
| Repetitive peak forward surge current              | $I_{FRM}$       | 625      | mA   |
| Power dissipation                                  | $P_D$           | 225      | mW   |
| Thermal resistance junction to ambient             | $R_{\theta JA}$ | 555      | ℃/W  |
| Operation Junction and Storage Temperature Range   | $T_J, T_{STG}$  | -55~+150 | ℃    |

### ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

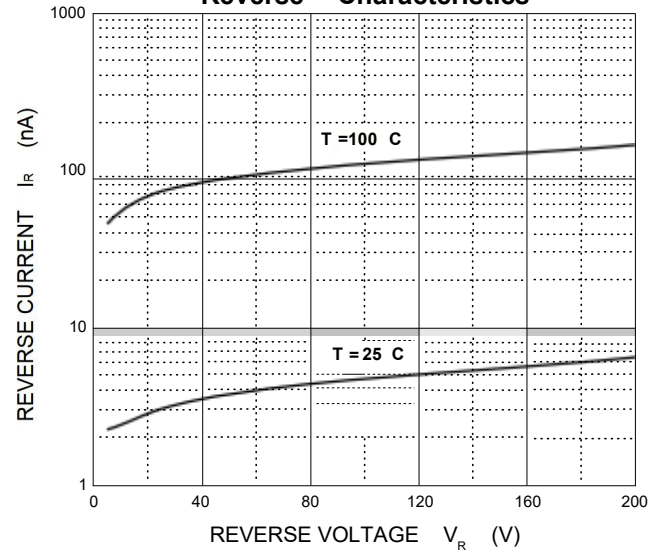
| Parameter                       | Symbol     | Test conditions                                              | Min | Max          | Unit    |
|---------------------------------|------------|--------------------------------------------------------------|-----|--------------|---------|
| Reverse breakdown voltage       | $V_{(BR)}$ | $I_R = 100\mu A$                                             | 250 |              | V       |
| Reverse voltage leakage current | $I_R$      | $V_R = 200V$                                                 |     | 0.1          | $\mu A$ |
| Forward voltage                 | $V_F$      | $I_F = 100mA$<br>$I_F = 200mA$                               |     | 1000<br>1250 | mV      |
| Diode capacitance               | $C_D$      | $V_R = 0V, f = 1MHz$                                         |     | 5            | pF      |
| Reveres recovery time           | $t_{rr}$   | $I_F = I_R = 30mA, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$ |     | 50           | ns      |

## Typical Characteristics

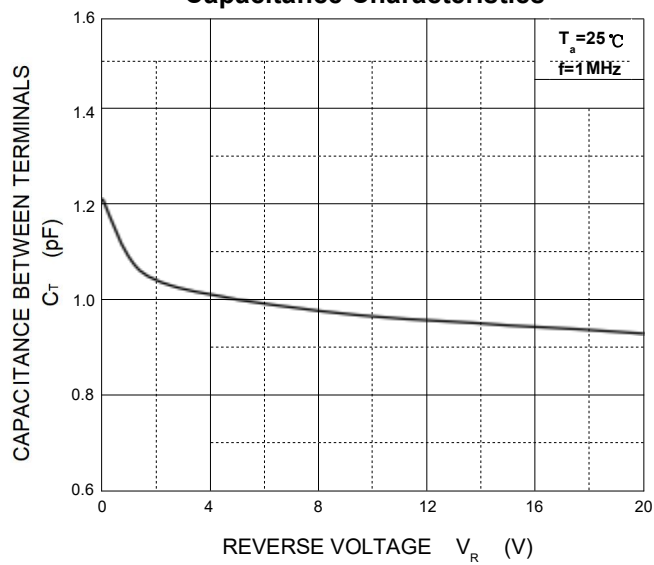
**Forward Characteristics**



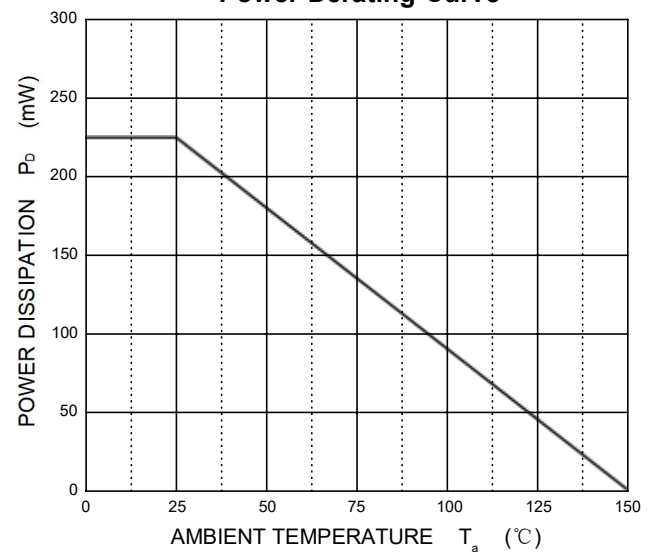
**Reverse Characteristics**



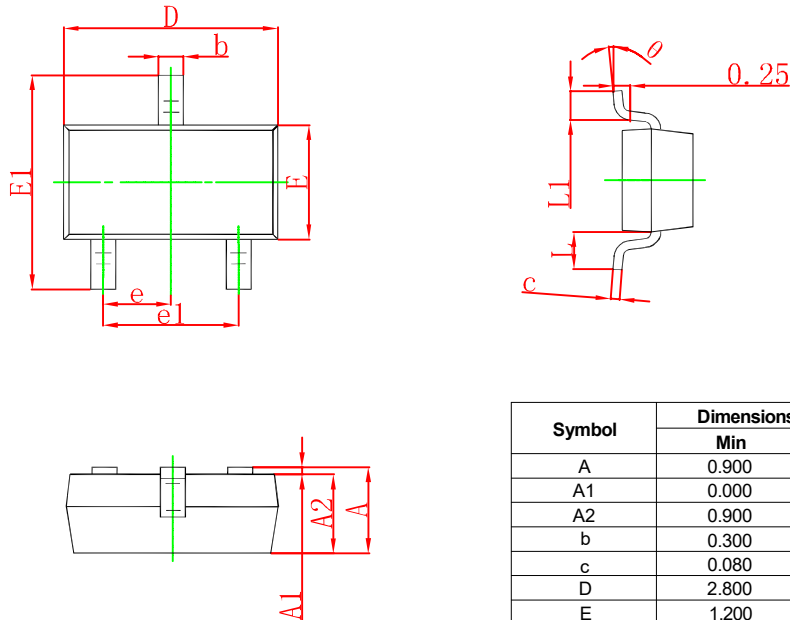
**Capacitance Characteristics**



**Power Derating Curve**

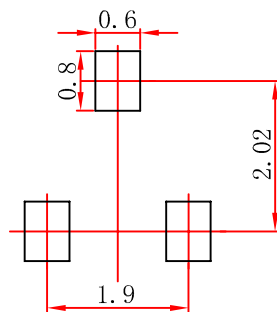


## SOT-23 Package Outline Dimensions



| 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 |
| θ      | 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.