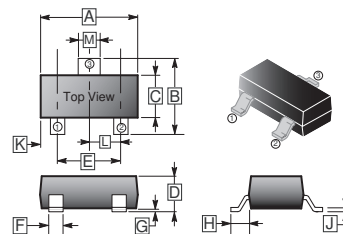


RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

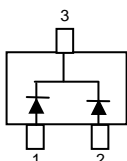
**SOT-523**

**FEATURE**

- ◆ Extra Small Power Mold Type.
- ◆ Low  $V_F$
- ◆ High Reliability



**MARKING: 3D**



| REF. | Millimeter |      | REF. | Millimeter |       |
|------|------------|------|------|------------|-------|
|      | Min.       | Max. |      | Min.       | Max.  |
| A    | 1.5        | 1.7  | G    | -          | 0.1   |
| B    | 1.45       | 1.75 | H    | 0.55 REF.  |       |
| C    | 0.75       | 0.85 | J    | 0.1        | 0.2   |
| D    | 0.7        | 0.9  | K    | -          |       |
| E    | 0.9        | 1.1  | L    | 0.5 TYP.   |       |
| F    | 0.15       | 0.25 | M    | 0.25       | 0.325 |

**ABSOLUTE MAXIMUM RATINGS at  $T_A = 25^\circ\text{C}$**

| PARAMETER                     | SYMBOL         | RATINGS      | UNIT             |
|-------------------------------|----------------|--------------|------------------|
| Peak Reverse Voltage          | $V_{RM}$       | 40           | V                |
| DC Reverse Voltage            | $V_R$          | 40           | V                |
| Peak Forward Surge Current    | $I_{FM}$       | 200          | mA               |
| Average Forward Current       | $I_O$          | 30           | mA               |
| Power Dissipation             | $P_D$          | 150          | mW               |
| Junction, Storage Temperature | $T_J, T_{STG}$ | 125, -50~125 | $^\circ\text{C}$ |

**ELECTRICAL CHARACTERISTICS (at  $T_A = 25^\circ\text{C}$  unless otherwise specified)**

| PARAMETERS                      | SYMBOL | TYP | MAX. | UNIT          | TEST CONDITIONS                  |
|---------------------------------|--------|-----|------|---------------|----------------------------------|
| Reverse Voltage Leakage Current | $I_R$  | -   | 1    | $\mu\text{A}$ | $V_R = 10\text{V}$               |
| Forward Voltage                 | $V_F$  | -   | 0.37 | V             | $I_F = 1\text{mA}$               |
| Capacitance between Terminals   | $C_T$  | 2.0 | -    | pF            | $V_R = 1\text{V}, f=1\text{MHz}$ |

**RATINGS AND CHARACTERISTIC CURVES**

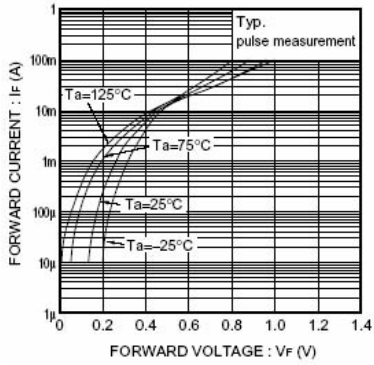


Fig. 1 Forward characteristics

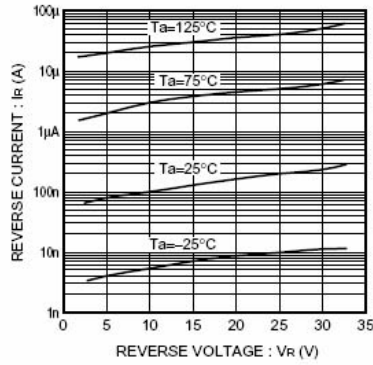


Fig. 2 Reverse characteristics

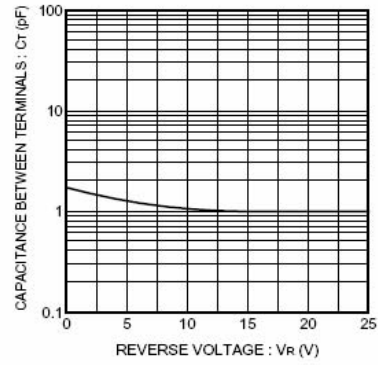


Fig. 3 Capacitance between terminals characteristics

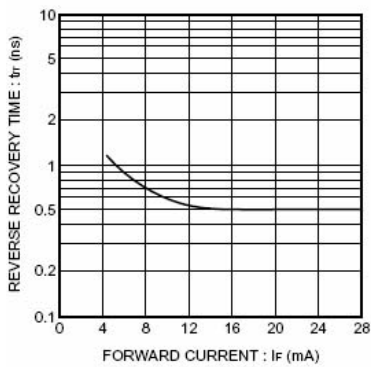


Fig. 4 Reverse recovery time characteristics