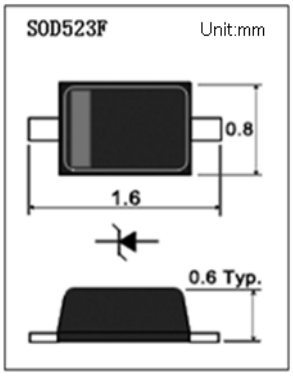
- ◇ Low Forward Voltage Drop
- ◇ **SOD523** Micro SMD Package
- ◇ RoHS Compliant / Green EMC
- ◇ Matte Tin (Sn) Lead Finish
- ◇ Cathode Band / Device Marking
- ◇ Surface Mount Package Ideally Suited For Automatic Insertion



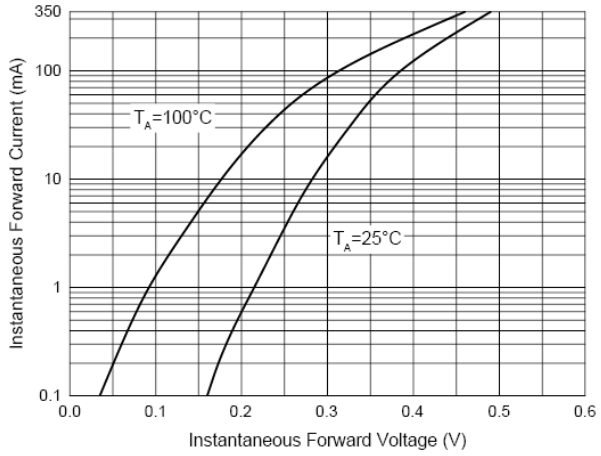

## Maximum Ratings (Ta = 25 ℃)

| Symbol | Parameter | Value | Units |
|---|---|---|---|
| $V_{RRM}$ | Peak Repetive Reverse Voltage | 40 | V |
| $V_{RWM}$ | Working Peak Reverse Voltage | 40 | V |
| $V_R$ | DC Blocking Voltage | 40 | V |
| $V_{R(RMS)}$ | RMS Reverse Voltage | 28 | V |
| $I_{FM}$ | Forward Continuous Current | 350 | mA |
| $I_{FSM}$ | Non-Repetitive Peak Forward Surge Current ( @t=8..3ms ) | 2.0 | A |
| $P_D$ | Power Dissipation | 200 | mW |
| $T_J$ | Junction Temperature | 125 | ℃ |
| $T_{STG}$ | Storage Temperature | -55 to +150 | ℃ |
| $R_{\theta JA}$ | Thermal Resistance From Junction To Ambient | 625 | ℃/W |

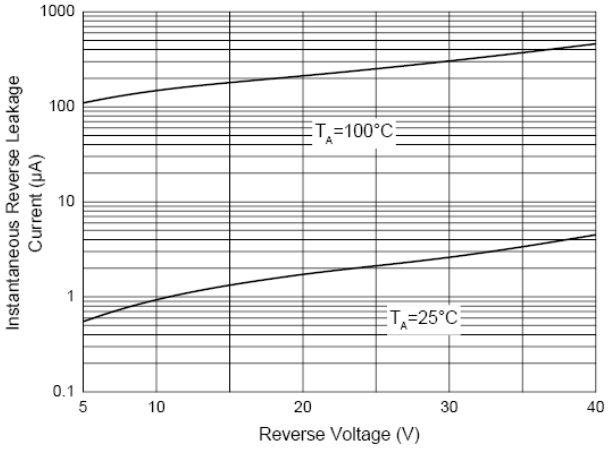
## Electrical Characteristics (Ta = 25 ℃)

| Symbol | Parameter | Conditions | Min | Typ | Max | Units |
|---|---|---|---|---|---|---|
| $V_{BR}$ | Reverse Voltage | $I_F$ = 100uA | 40 | | | V |
| $V_F$ | Forward Voltage | $I_F$ = 20mA<br>$I_F$ = 200mA | | | 0.37<br>0.60 | V<br>V |
| $I_R$ | Reverse current | $V_R$= 30V | | | 5 | μA |
| $C_T$ | Capacitance | $V_R$ = 0V, f = 1MHz | | | 50 | pF |
| $t_{rr}$ | Typical Reverse Recovery Time | $I_F$ = $I_R$ =200mA,<br>Irr=0.1*$I_R$, $R_L$ = 100Ω | | 10 | | ns |

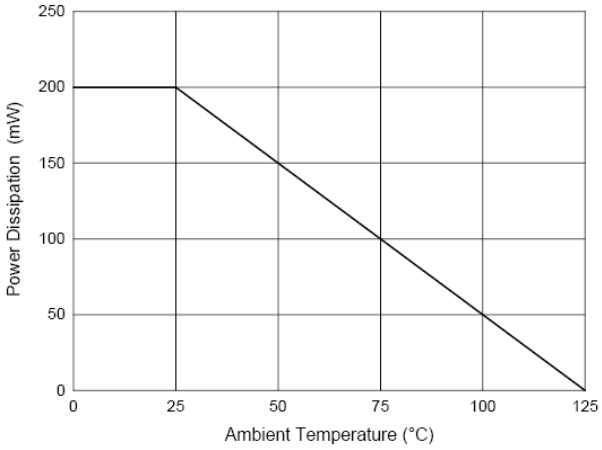
## Curve Characteristics




Typical Instantaneous Forward Characteristics



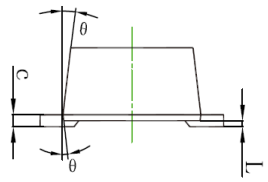

Typical Reverse Leakage Characteristics

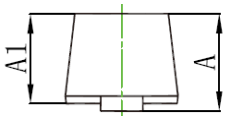


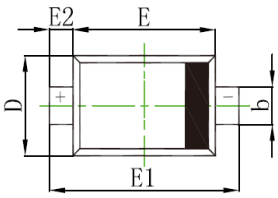

Power Derating Curve

## Package Dimensions

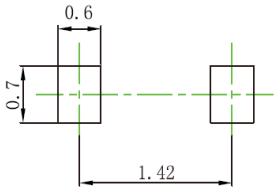
**Package outline : SOD-523**




**SOD523Package Outline**




**Land Pattern Recommendation**

| Unit | A | A1 | b | c | D | E | E1 | E2 | L | θ |
|---|---|---|---|---|---|---|---|---|---|---|
| Max. | 0.70 | 0.70 | 0.35 | 0.15 | 0.85 | 1.30 | 1.70 | 0.25 | 0.07 | 7° REF. |
| Min. | 0.51 | 0.50 | 0.25 | 0.08 | 0.75 | 1.10 | 1.50 | 0.15 | 0.01 | |

Note:
1. Halogen free,EMC
2. Pb free solder
3. Lead thickness includes solder plating
4. Lead frame: Cu
5. Other Tolerance: ±0.05
6. Dimensions are exclusive of Burrs,Mold Flash and Tie Bar extrusions
7. Unit: mm