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SEMICONDUCTOR



ESD



TVS



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MOV



GDT

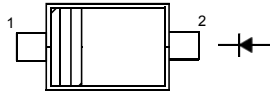


PLED

Product data sheet

Features

- Fast switching speed
- Ultra-small surface mount package
- For general purpose switching applications
- High conductance



SOD-523

RNNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1 | Cathode |
| 2 | Anode |

MARK:T4

Absolute Maximum Ratings (T_a = 25 °C)

| Parameter | Symbol | Value | Unit |
|--|--------------------|---------------|------------------------------|
| Non-Repetitive Peak Reverse Voltage | V _{RM} | 100 | V |
| Reverse Voltage | V _R | 75 | V |
| Average Rectified Forward Current | I _{F(AV)} | 125 | mA |
| Forward Continuous Current | I _{FM} | 250 | mA |
| Non-repetitive Peak Forward Surge Current | I _{FSM} | 2 1 | A |
| | | | at t = 1 μs at t = 100 ms |
| Power Dissipation | P _{tot} | 150 | mW |
| Thermal Resistance Junction to Ambient Air | R _{θJA} | 833 | °C/W |
| Operating Temperature Range | T _j | - 65 to + 150 | °C |
| Storage Temperature Range | T _{stg} | - 65 to + 150 | °C |

Characteristics at T_a = 25 °C

| Parameter | Symbol | Min. | Max. | Unit |
|--|--------------------|------------------|-----------------------------|----------------------|
| Reverse Breakdown Voltage at I _R = 1 μA | V _{(BR)R} | 75 | - | V |
| Forward Voltage at I _F = 1 mA at I _F = 10 mA at I _F = 50 mA at I _F = 150 mA | V _F | - - - - | 0.715 0.855 1 1.25 | V |
| Peak Reverse Current at V _R = 75 V at V _R = 20 V at V _R = 75 V, T _J = 150 °C at V _R = 25 V, T _J = 150 °C | I _R | - - - - | 1 25 50 30 | μA nA μA μA |
| Total Capacitance at V _R = 0 V, f = 1 MHz | C _T | - | 2 | pF |
| Reverse Recovery Time at I _{rr} = 0.1 X I _R , I _F = I _R = 10 mA, R _L = 100 Ω | t _{rr} | - | 4 | ns |

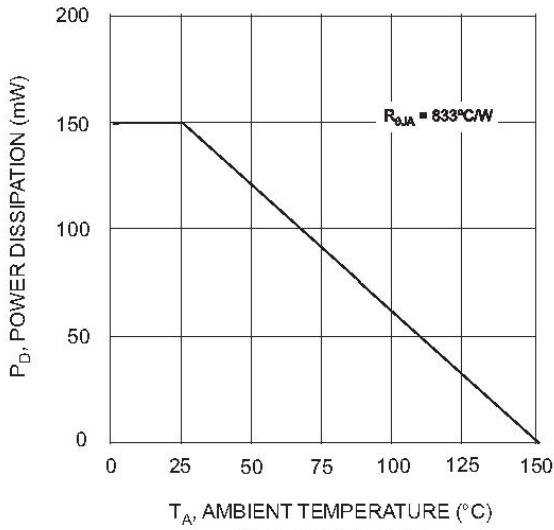


Fig. 1 Derating Curve

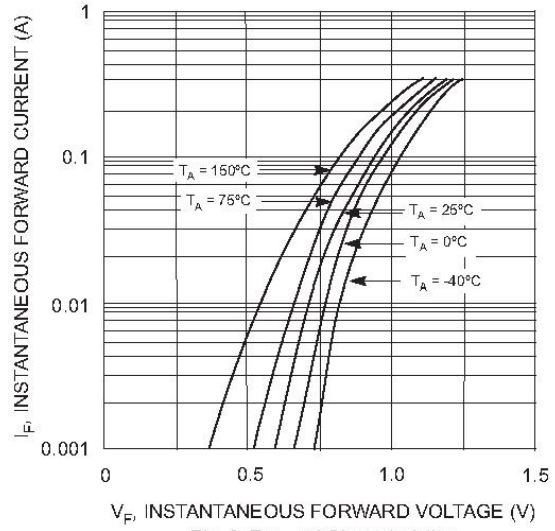


Fig. 2 Forward Characteristics

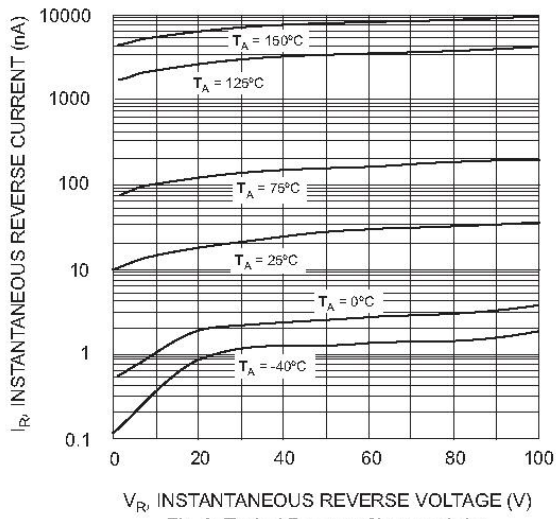


Fig. 3 Typical Reverse Characteristics

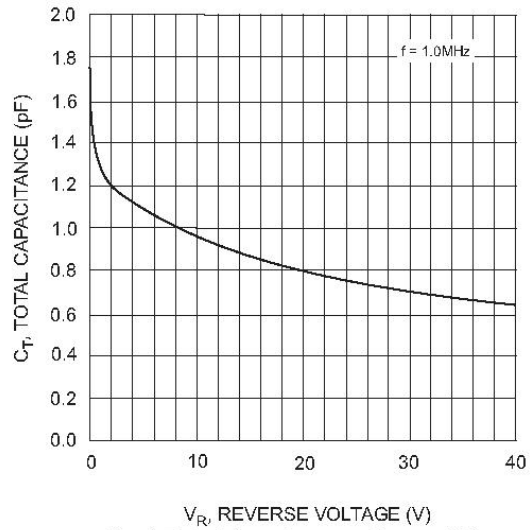
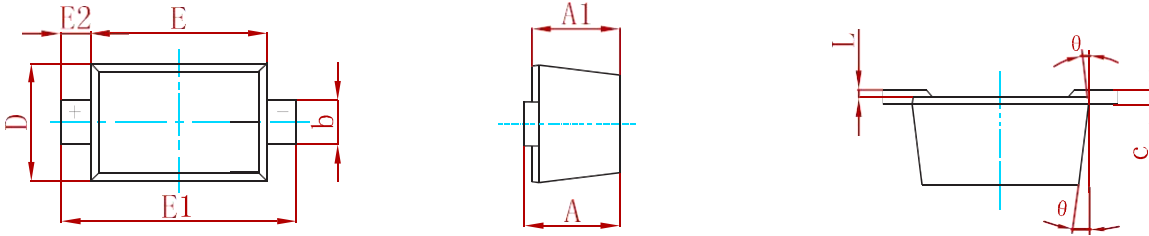


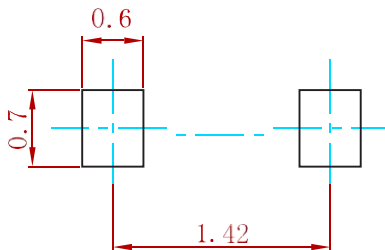
Fig. 4 Typical Capacitance vs. Reverse Voltage

PACKAGE MECHANICAL DATA



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|-------|----------------------|-------|
| | Min | Max | Min | Max |
| A | 0.510 | 0.770 | 0.020 | 0.031 |
| A1 | 0.500 | 0.700 | 0.020 | 0.028 |
| b | 0.250 | 0.350 | 0.010 | 0.014 |
| c | 0.080 | 0.150 | 0.003 | 0.006 |
| D | 0.750 | 0.850 | 0.030 | 0.033 |
| E | 1.100 | 1.300 | 0.043 | 0.051 |
| E1 | 1.500 | 1.700 | 0.059 | 0.067 |
| E2 | 0.200 REF | | 0.008 REF | |
| L | 0.010 | 0.070 | 0.001 | 0.003 |
| 0 | 7° REF | | 7° REF | |

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.

REEL SPECIFICATION

| P/N | PKG | QTY |
|-------------|---------|------|
| 1N4148WT-MS | SOD-523 | 3000 |

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