

# MSKSEMI

SEMICONDUCTOR



ESD



TVS



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PLED

Product data sheet

**FEATURES**



- Small surface mounting type
- High speed
- High reliability with high surge current handling capability

**MARKING:A**



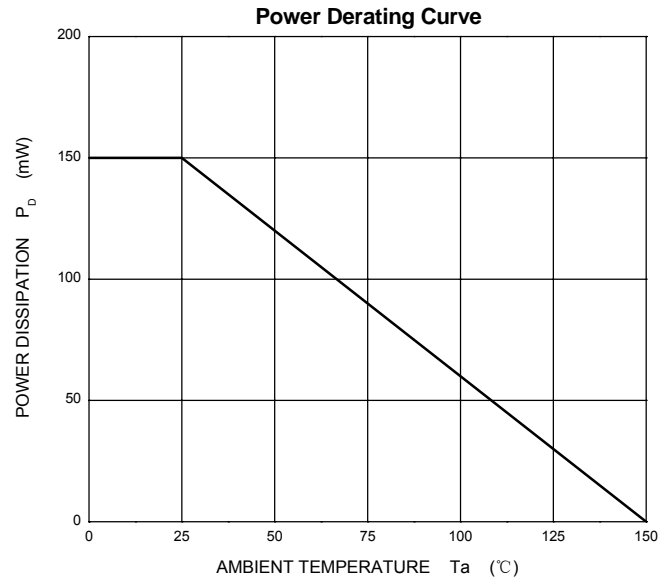
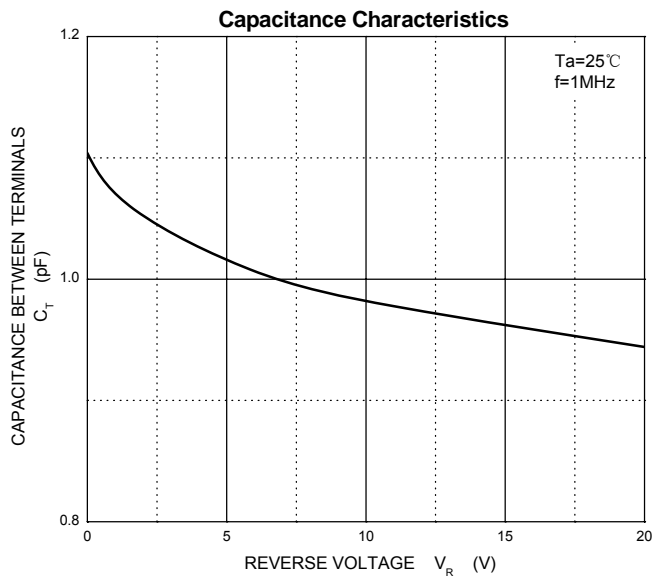
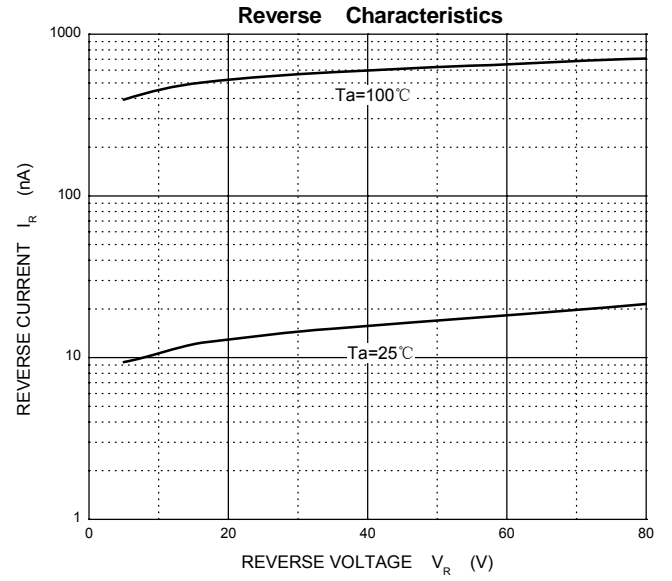
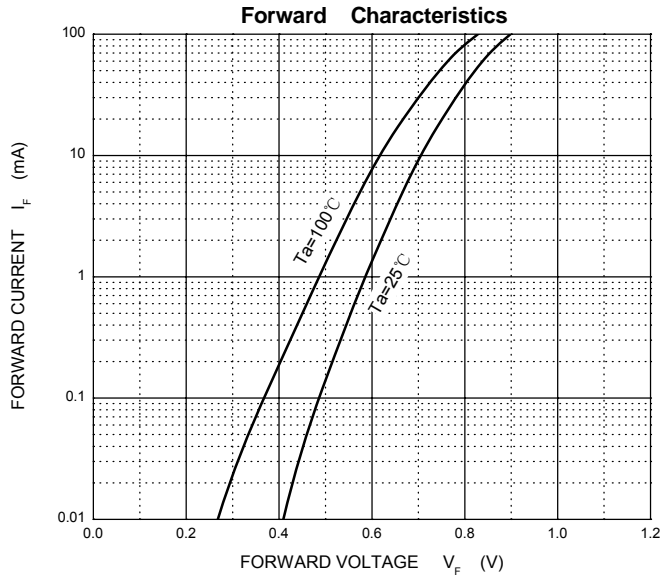
SOD-523

**Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C**

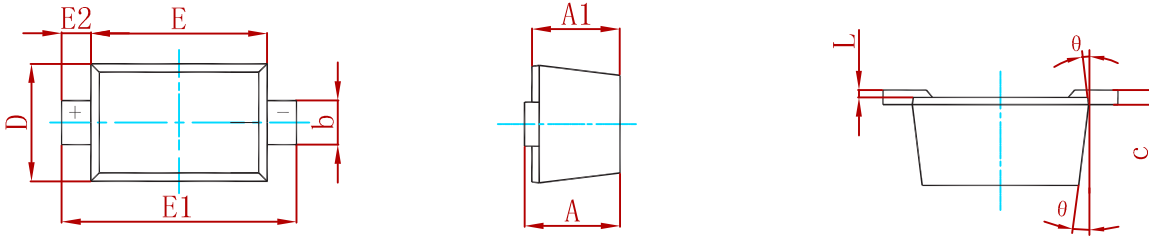
| Parameter   | Symbol          | Limit    | Unit |
|---|-----------------|----------|------|
| Non-Repetitive Peak Reverse Voltage                 | $V_{RM}$        | 90       | V    |
| DC Blocking Voltage                                 | $V_R$           | 80       | V    |
| Forward Continuous Current                          | $I_{FM}$        | 225      | mA   |
| Average Rectified Output Current                    | $I_O$           | 100      | mA   |
| Non-Repetitive Peak Forward Surge Current @ t=8.3ms | $I_{FSM}$       | 2.0      | A    |
| Power Dissipation                                   | $P_d$           | 150      | mW   |
| Thermal Resistance Junction to Ambient              | $R_{\theta JA}$ | 833      | °C/W |
| Junction Temperature                                | $T_j$           | 150      | °C   |
| Storage Temperature                                 | $T_{STG}$       | -55~+150 | °C   |

**Electrical Ratings @Ta=25°C**

| Parameter                     | Symbol   | Min. | Typ. | Max. | Unit    | Conditions                        |
|-------------------------------|----------|------|------|------|---------|-----------------------------------|
| Forward voltage               | $V_F$    |      |      | 1.2  | V       | $I_F=100mA$                       |
| Reverse current               | $I_R$    |      |      | 0.1  | $\mu A$ | $V_R=80V$                         |
| Capacitance between terminals | $C_T$    |      |      | 3.0  | pF      | $V_R=0.5V, f=1MHz$                |
| Reverse recovery time         | $t_{rr}$ |      |      | 4    | ns      | $V_R=6V, I_F=10mA, R_L=100\Omega$ |

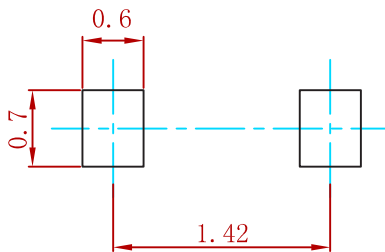


**PACKAGE MECHANICAL DATA**



| 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 |
| θ      | 7° REF                    |       | 7° REF               |       |

**Suggested Pad Layout**



- Note:
1. Controlling dimension: in millimeters.
  2. General tolerance: ± 0.05mm.
  3. The pad layout is for reference purposes only.

**REEL SPECIFICATION**

| P/N    | PKG     | QTY  |
|--------|---------|------|
| 1SS400 | SOD-523 | 3000 |

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