

Features

- Small surface mounting type
- Low reverse current and low forward voltage
- High reliability



SOD-523



Schematic Diagram



Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

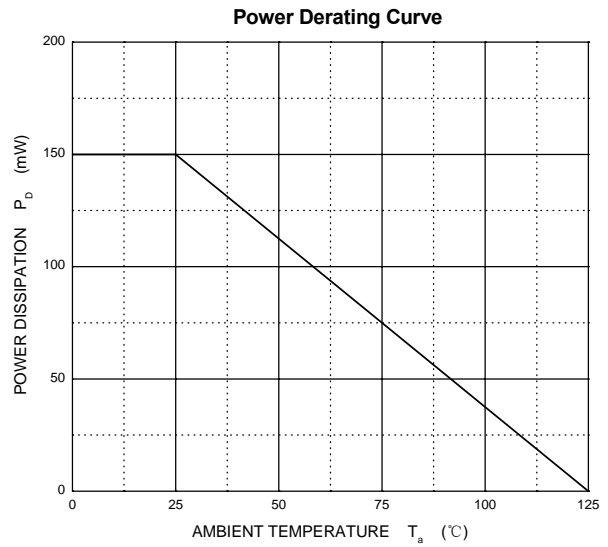
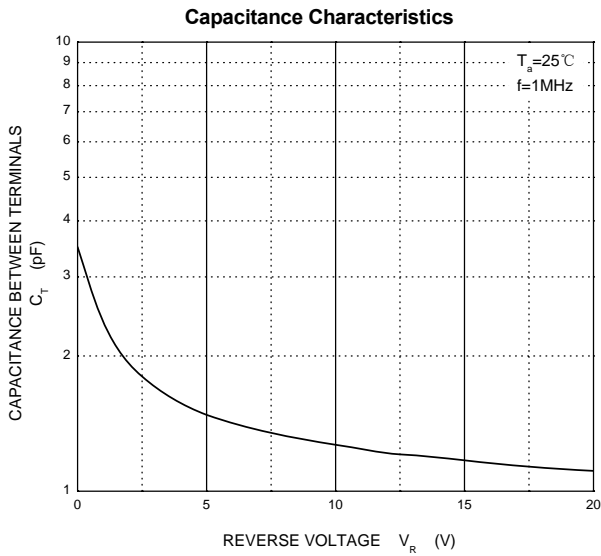
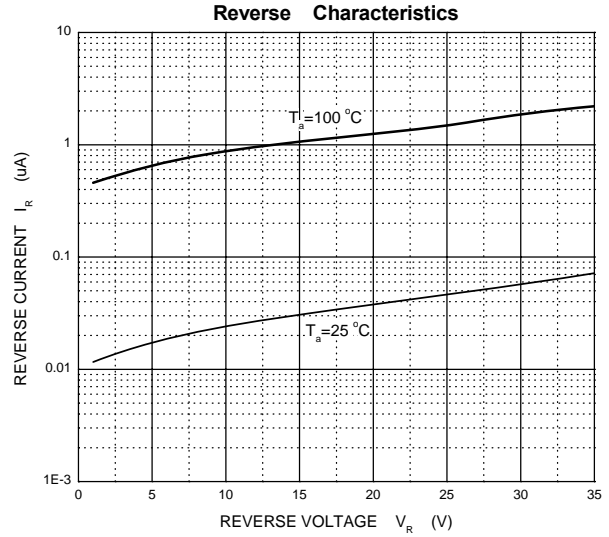
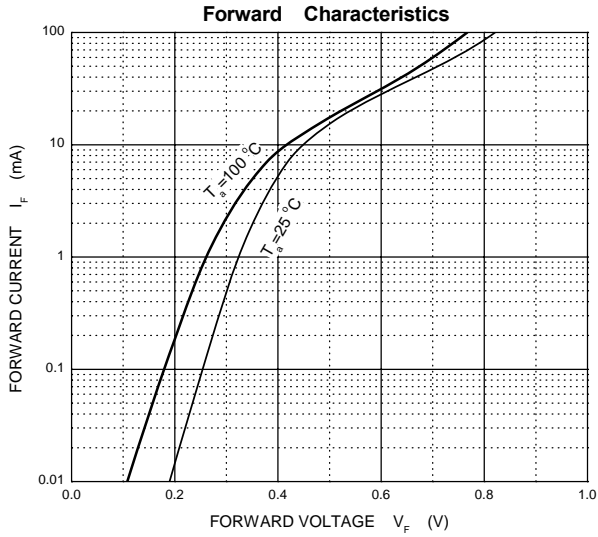
| Parameter | Symbol | Limit | Unit |
|---|------------------|-------------|------|
| Peak Reverse Voltage | V _{RM} | 40 | V |
| DC Reverse Voltage | V _R | 30 | V |
| Mean Rectifying Current | I _O | 30 | mA |
| Non-Repetitive Peak Forward Surge Current@t=8.3ms | I _{FSM} | 200 | mA |
| Power Dissipation | P _D | 150 | mW |
| Thermal Resistance Junction to Ambient | R _{θJA} | 667 | °C/W |
| Junction Temperature | T _J | 125 | °C |
| Storage Temperature | T _{STG} | -55 to +150 | °C |

Electrical Characteristics (T_A=25°C unless otherwise specified)

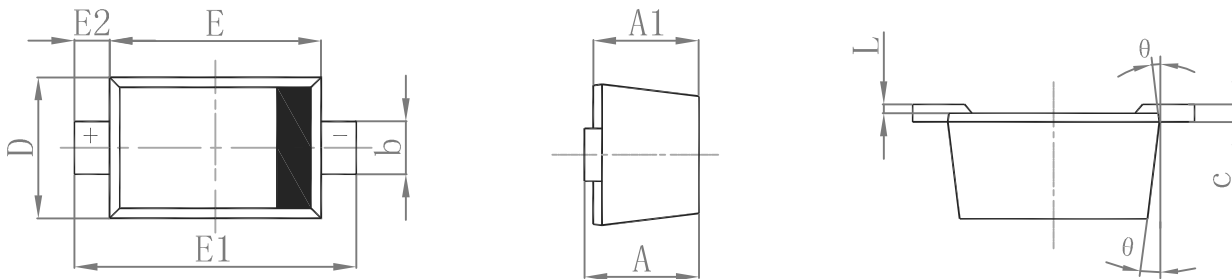
| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|-------------------------------|----------------|---------------------------|-----|-----|------|------|
| Forward Voltage | V _F | I _F =1mA | - | - | 0.37 | V |
| Reverse Current | I _R | V _R =30V | - | - | 0.5 | μA |
| Capacitance between Terminals | C _T | V _R =1V,f=1MHZ | - | 2 | - | pF |



Typical Characteristic Curves

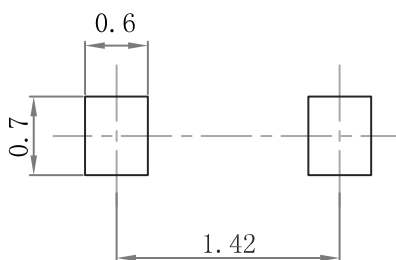


Package Outline Dimensions SOD-523



| 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: $\pm 0.05\text{mm}$.
 3. The pad layout is for reference purposes only.

Order Information

| Device | Package | Marking | Carrier | Quantity | HSF Status |
|-------------|---------|---------|-------------|----------------|----------------|
| SPRB751S-40 | SOD-523 | 5 | Tape & Reel | 8000pcs / Reel | RoHS compliant |