

Applications

- Computers and peripherals
- Audio and video equipment
- Cellular handsets and accessories
- 10/100/1000 Ethernet
- Local Area Network (LAN) equipment
- Communication systems
- Portable electronics
- SIM card protection

Features

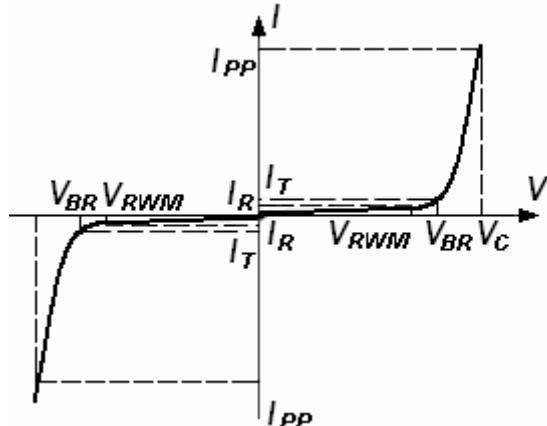
- Ultra Low Capacitance 2.5 pF(Typ)
- Stand-off Voltage: 5 V
- Low Clamping Voltage
- Low Leakage current
- Response Time is Typically < 1ns
- Small Body Outline Dimensions
- IEC61000-4-2 Level 4 ESD Protection

Absolute Ratings ($T_{amb}=25^{\circ}C$)

| Symbol | Parameter | Value | Units |
|-----------|---|-------------|-------|
| P_{PP} | Peak Pulse Power ($t_p = 8/20 \mu s$) | 30 | W |
| T_L | Maximum lead temperature for soldering during 10s | 260 | °C |
| T_{stg} | Storage Temperature Range | -55 to +150 | °C |
| T_{op} | Operating Temperature Range | -40 to +125 | °C |
| T_j | Maximum junction temperature | 150 | °C |
| | IEC61000-4-2(ESD) air discharge contact discharge | ±15 ±8 | KV |

Electrical Parameter

| Symbol | Parameter |
|-----------|---|
| I_{PP} | Maximum Reverse Peak Pulse Current |
| V_C | Clamping Voltage @ I_{PP} |
| V_{RWM} | Working Peak Reverse Voltage |
| I_R | Maximum Reverse Leakage Current @ V_{RWM} |
| I_T | Test Current |
| V_{BR} | Breakdown Voltage @ I_T |



Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. VF = 0.9V at IF = 10mA

| Device | Device Marking | V_{RWM} (V) | $I_R(\mu A)$ @ V_{RWM} | $V_{BR} (V) @ I_T$ (Note 1) | I_T | $V_C (V)$ @ $I_{PP}=2 A^*$ | P_{PK} (W)* | C (pF) |
|------------|-------------------|------------------|-----------------------------|--------------------------------|-------|-------------------------------|------------------|-----------|
| | | Max | Max | Min | mA | Typ | Max | Typ |
| ESD5LM5.0C | LB | 5.0 | 0.2 | 6.0 | 1.0 | 13.0 | 30 | 2.5 |

*Surge current waveform per Figure 1.

1. V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25°C.

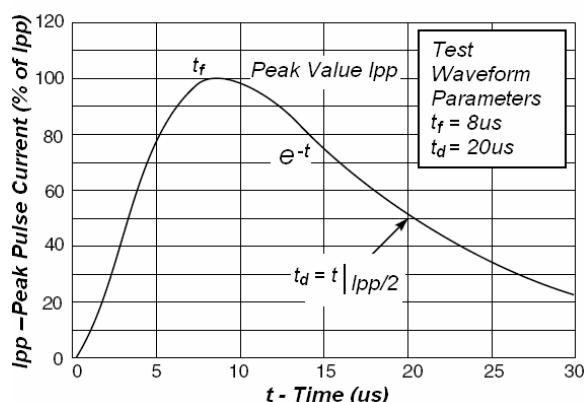


Fig1.IEC61000-4-5Waveform

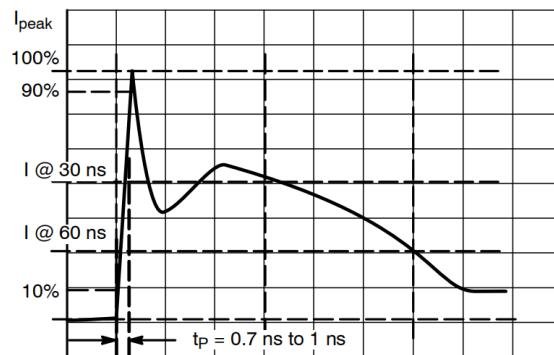
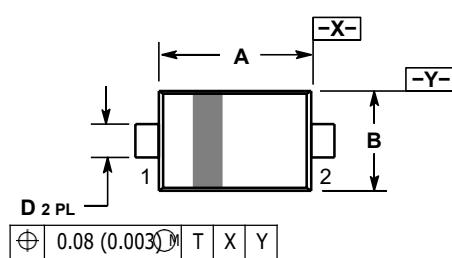


Fig2.IEC61000-4-2 Waveform

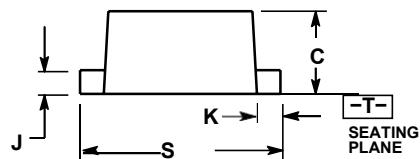
Package Outline Dimensions

SOD-523


NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH.
MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS.

| DIM | MILLIMETERS | | | INCHES | | |
|-----|-------------|------|------|--------|--------|--------|
| | MIN | NOM | MAX | MIN | NOM | MAX |
| A | 1.10 | 1.20 | 1.30 | 0.043 | 0.047 | 0.051 |
| B | 0.70 | 0.80 | 0.90 | 0.028 | 0.032 | 0.035 |
| C | 0.50 | 0.60 | 0.70 | 0.020 | 0.024 | 0.028 |
| D | 0.25 | 0.30 | 0.35 | 0.010 | 0.012 | 0.014 |
| J | 0.07 | 0.14 | 0.20 | 0.0028 | 0.0055 | 0.0079 |
| K | 0.15 | 0.20 | 0.25 | 0.006 | 0.008 | 0.010 |
| S | 1.50 | 1.60 | 1.70 | 0.059 | 0.063 | 0.067 |



SOLDERING FOOTPRINT*

