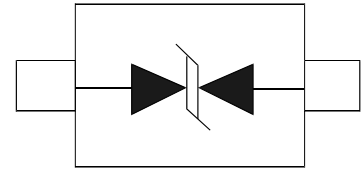


Description

The SESD3Z08C is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium.



Features

- Small Body Outline Dimensions
- Low Body Height
- Peak Power up to 350 Watts @ 8 x 20 μ s Pulse
- Low Leakage current
- Response Time is Typically < 1 ns
- ESD Rating of Class 3 (> 16 kV) per Human Body Model

Applications

- Cellular phones
- Portable devices
- Digital cameras
- Power supplies

Complies with the following standards

IEC61000-4-2

Level 4 15 kV (air discharge)

8 kV(contact discharge)

MIL STD 883E - Method 3015-7 Class 3

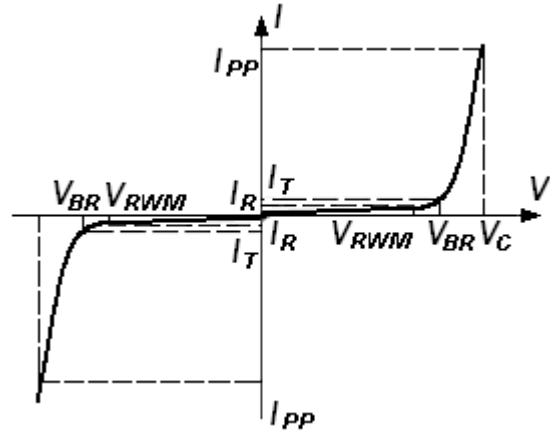
25 kV HBM (Human Body Model)

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

| Symbol | Parameter | Value | Units |
|-----------|---|-------------|-------------|
| P_{PK} | Peak Pulse Power ($t_p = 8/20\mu s$) | 350 | W |
| T_L | Maximum lead temperature for soldering during 10s | 260 | $^{\circ}C$ |
| T_{stg} | Storage Temperature Range | -55 to +155 | $^{\circ}C$ |
| T_{op} | Operating Temperature Range | -40 to +125 | $^{\circ}C$ |
| T_J | Maximum junction temperature | 150 | $^{\circ}C$ |

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.

| Part Numbers | V_{BR} | | | I_T | V_{RWM} | I_R | C |
|--------------|----------|------|------|-------|-----------|-------|--------------|
| | Min. | Typ. | Max. | | | | Typ. (Note1) |
| | V | V | V | | | | pF |
| SESD3Z08C | 8.6 | 9.5 | 10.2 | 1 | 5 | 1 | 24 |

1. Capacitance is measured at $f=1\text{MHz}$, $V_R=0\text{V}$, $T_A=25^\circ\text{C}$.

Typical Characteristics

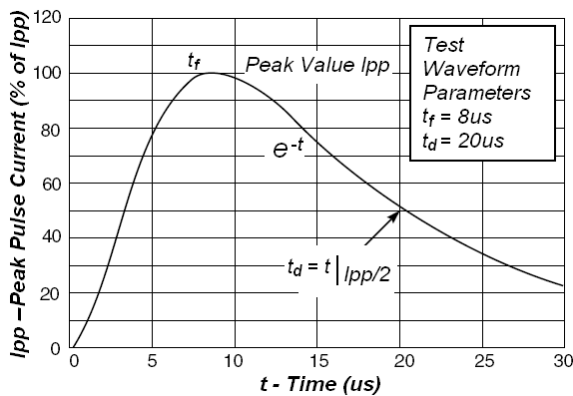
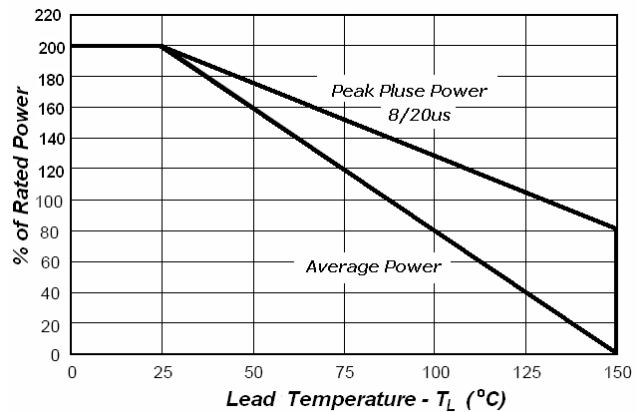
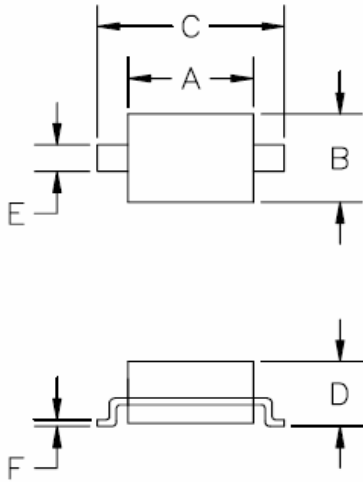


Fig1. Pulse Waveform

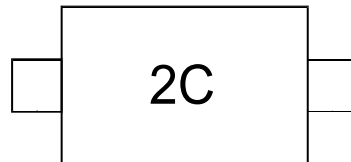


Outline Drawing – SOD-323



| Dimensions | | | | |
|------------|--------|-------|------|------|
| Dim | Inches | | Mil | |
| | Min | Max | Min | Max |
| A | 0.060 | 0.071 | 1.5 | 1.8 |
| B | 0.045 | 0.054 | 1.2 | 1.4 |
| C | 0.060 | 0.107 | 2.3 | 2.7 |
| D | - | 0.043 | - | 1.1 |
| E | 0.012 | 0.016 | 0.3 | 0.4 |
| F | 0.004 | 0.010 | 0.10 | 0.25 |
| H | - | 0.004 | - | 0.10 |

Marking



Ordering information

| Order code | Package | Baseqty | Deliverymode |
|---------------|---------|---------|---------------|
| UMW SESD3Z08C | SOD-323 | 3000 | Tape and reel |