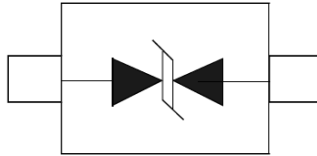



**SOD-323**

**Features**

 230Watts peak pulse power( $t_p=8/20\mu s$ )

Low clamping voltage

Low leakage current

Glass passivated junction

Low capacitance

 IEC 61000-4-2  $\pm 30V$  contact  $\pm 30KV$  air

Halogen free and RoHS compliant

**Mechanical Data**

CASE: SOD-323 Molded Plastic

Molding compound flammability rating: UL 94V-0

Mounting Position:Any

**Making Code & Ordering information**

|           | <table border="1"> <thead> <tr> <th>Ordercode</th> <th>Package</th> <th>Base qty</th> <th>Deliverymode</th> </tr> </thead> <tbody> <tr> <td>PSD3L05C</td> <td>SOD323</td> <td>3000</td> <td>Tape and reel</td> </tr> </tbody> </table> | Ordercode | Package       | Base qty | Deliverymode | PSD3L05C | SOD323 | 3000 | Tape and reel |
|-----------|--|-----------|---------------|----------|--------------|----------|--------|------|---------------|
| Ordercode | Package  | Base qty  | Deliverymode  |          |              |          |        |      |               |
| PSD3L05C  | SOD323   | 3000      | Tape and reel |          |              |          |        |      |               |

**Maximum Ratings & Thermal Characteristics**

(Ratings at 25°C ambient temperature unless otherwise specified.)

| Rating  | Symbol    | Value          | Units |
|---|-----------|----------------|-------|
| Peak Pulse Power ( $t_p=8/20\mu s$ )                          | $P_{PP}$  | 230            | Watts |
| Peak Pulse Current ( $t_p=8/20\mu s$ )(note1)                 | $I_{PP}$  | 14             | A     |
| ESD per IEC 61000-4-2 (Air)<br>ESD per IEC 61000-4-2(Contact) | $V_{ESD}$ | 30<br>30       | kV    |
| Lead Soldering Temperature                                    | $T_L$     | 260(10seconds) | °C    |
| Junction Temperature  | $T_J$     | -55 to +125    | °C    |
| Storage Temperature   | $T_{stg}$ | -55 to +125    | °C    |

**Electrical Characteristics**

(Ratings at 25°C ambient temperature unless otherwise specified).

| Parameter                 | Symbol    | Conditions                   | Min | Typical | Max | Units   |
|---------------------------|-----------|------------------------------|-----|---------|-----|---------|
| Reverse Stand-Off Voltage | $V_{RWM}$ |                              |     |         | 5.0 | V       |
| Reverse Breakdown Voltage | $V_{BR}$  | $I_T=1mA$                    | 6.0 |         |     | V       |
| Reverse Leakage Current   | $I_R$     | $V_{RWM}=5.0V, T=25^\circ C$ |     |         | 1   | $\mu A$ |
| Clamping Voltage          | $V_C$     | $I_{PP}=7A, t_p=8/20V$       |     |         | 13  | V       |
| Clamping Voltage          | $V_C$     | $I_{PP}=14A, t_p=8/20\mu s$  |     |         | 17  | V       |
| Junction Capacitance      | $C_j$     | $V_R = 0V, f = 1MHz$         |     | 1.4     |     | pF      |



## Ratings and Characteristic Curves

(Ratings at 25°C ambient temperature unless otherwise specified).

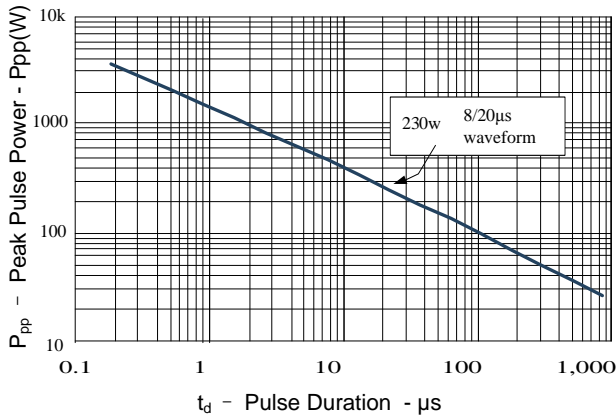


Figure 1: Peak Pulse Power vs. Pulse Time

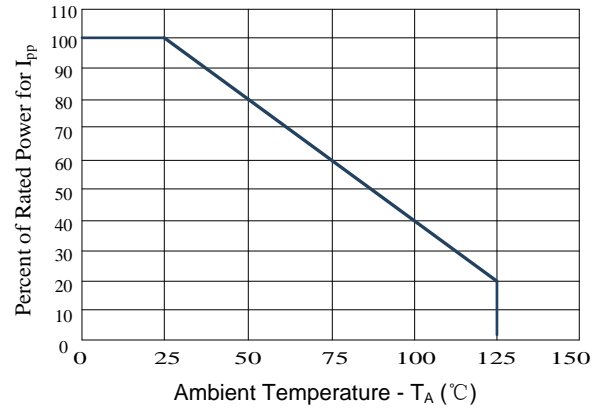


Figure 2: Power Derating Curve

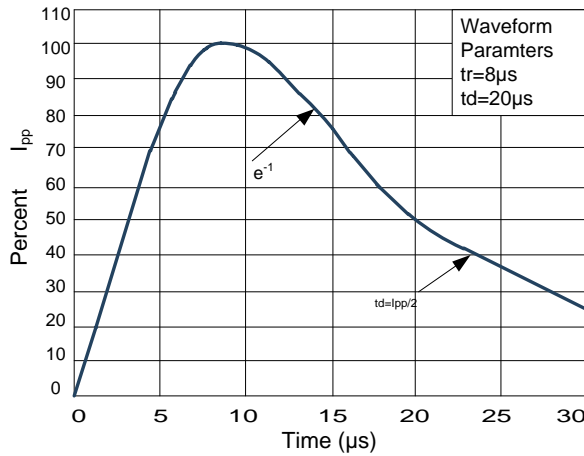


Figure 3: Pulse Waveform

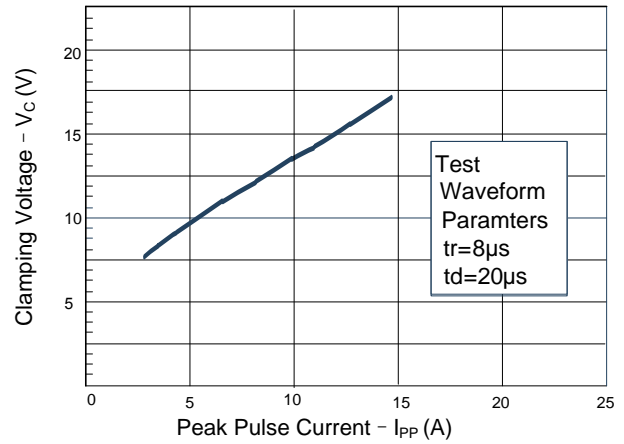
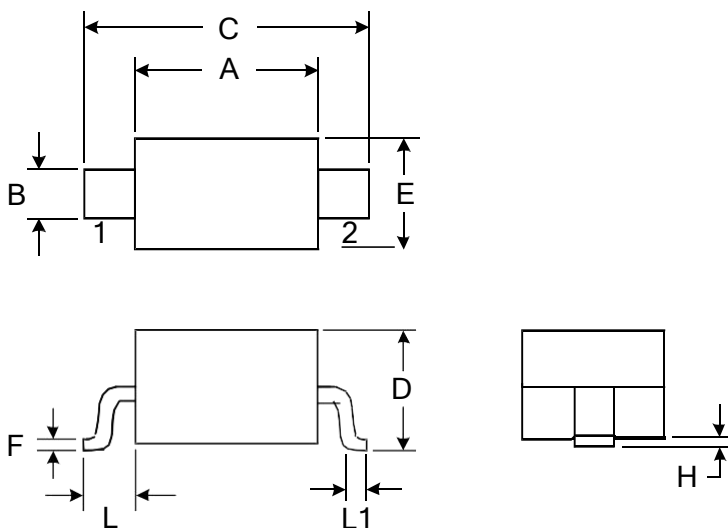


Figure 4: Clamping Voltage vs. Ipp

## Package Outline Dimensions: SOD-323



| DIMENSIONS |            |       |          |       |
|------------|------------|-------|----------|-------|
| SYMBOL     | MILLIMETER |       | INCHES   |       |
|            | MIN        | MAX   | MIN      | MAX   |
| A          | 1.600      | 1.800 | 0.063    | 0.071 |
| B          | 0.250      | 0.350 | 0.010    | 0.014 |
| C          | 2.500      | 2.700 | 0.098    | 0.106 |
| D          |            | 1.000 |          | 0.039 |
| E          | 1.200      | 1.400 | 0.047    | 0.055 |
| F          | 0.080      | 0.150 | 0.003    | 0.006 |
| L          | 0.475 REF  |       | 0.019REF |       |
| L1         | 0.250      | 0.400 | 0.010    | 0.016 |
| H          | 0.000      | 0.100 | 0.000    | 0.004 |