

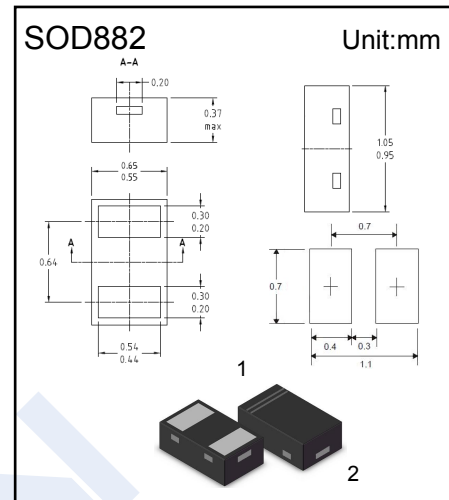
TVS Diodes

ESD8D5.0ST5G

■ Features

- Small Body Outline Dimensions
- Low Body Height
- Peak Power up to 150 Watts@8 x 20 us Pulse
- Low Leakage current
- Response Time is Typically < 1ns

ESD Rating of Class 3(>16kV)per Human



■ Absolute Maximum Ratings Ta = 25°C

| Parameter | Symbol | Rating | Unit |
|-------------------------------------------------------|--------|------------|------|
| IEC61000-4-2 (ESD) air discharge contact discharge | | ± 15 | KV |
| | | ± 8 | |
| ESD Voltage | | 16 | |
| IEC61000-4-2 (EFT) | | 40 | A |
| Peak Pulse Power (tp=8/20us) | PPP | 150 | W |
| Lead Temperature for Soldering During 10s | TL | 260 | °C |
| Junction Temperature | TJ | 150 | |
| Operating Temperature Range | Top | -40 to 125 | |
| Storage Temperature Range | Tstg | -55 to 150 | |

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

| Device | V _{RWM} (V) | I _{R1} (uA) @ V _{RWM} | I _{R2} (uA) @ V _R =3.5V | V _{BR} (V)@ I _T (Note 1) | I _T | V _C (V) @ I _{PP} =5 A* | V _C (V) @ Max I _{PP} * | I _{PP} (A)* | P _{PK} (W)* | C (pF) |
|--------------|-------------------------|--------------------------------------------|------------------------------------------------|-------------------------------------------------|----------------|-----------------------------------------------|-----------------------------------------------|-------------------------|-------------------------|-----------|
| | Max | Max | Max | Min | mA | Typ | Max | Max | Max | Typ |
| ESD8D5.0ST5G | 5.0 | 0.5 | 0.3 | 5.6 | 1.0 | 11.6 | 18.6 | 9.4 | 174 | 10 |

*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.

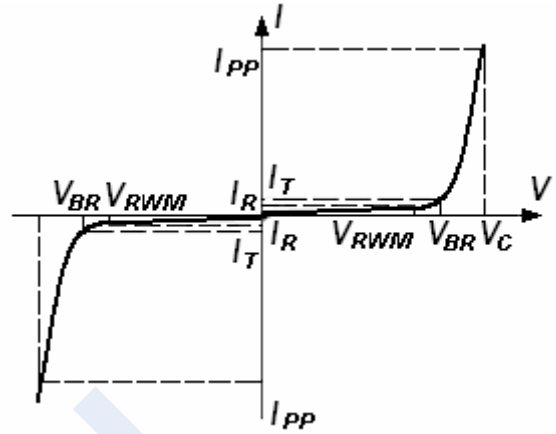
■ Marking

| | |
|---------|---|
| Marking | C |
|---------|---|

TVS Diodes ESD8D5.0ST5G

■ 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 |



■ Typical Characteristics

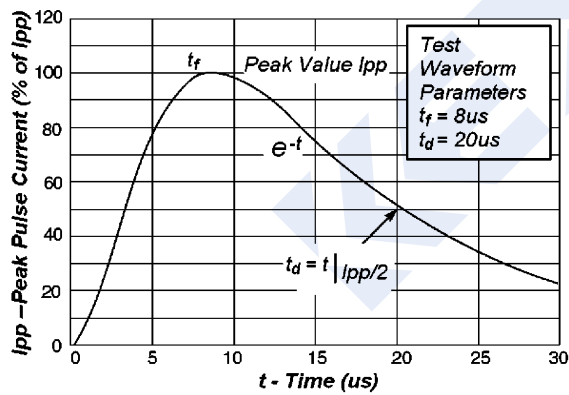


Fig1. Pulse Waveform

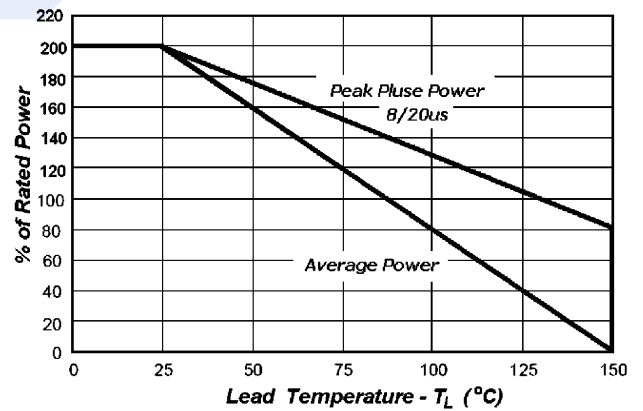


Fig2. Power Derating Curve