

Features

- * 400W peak pulse power (8/20μs)
- * Protects one data or power line
- * Operating voltage: 3.3V
- * Ultra low clamping voltage
- * Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: ±30kV
 - Contact discharge: ±30kV
 - IEC61000-4-4 (EFT) 80A (5/50ns)
 - IEC61000-4-5 (SURGE)35 A (8/20us)

Ordering Information

| Part Number | Qty per Reel | Reel Size |
|-------------|--------------|-----------|
| PESD3V3L1BA | 3000 | 7" |

www.sot23.com.tw

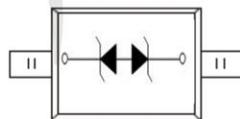
Mechanical Characteristics

- * Package: SOD-323
- * Ultra low leakage: nA level
- * Case Material: "Green" Molding Compound.
- * UL Flammability Classification Rating 94V-0
- * Moisture Sensitivity: Level 3 per J-STD-020

Applications

- * Cellular Handsets and Accessories
- * Personal Digital Assistants
- * Notebooks and Handhelds
- * Portable Instrumentation
- * Peripherals

Dimensions and Pin Configuration



Marking:(3/E ,03B,)

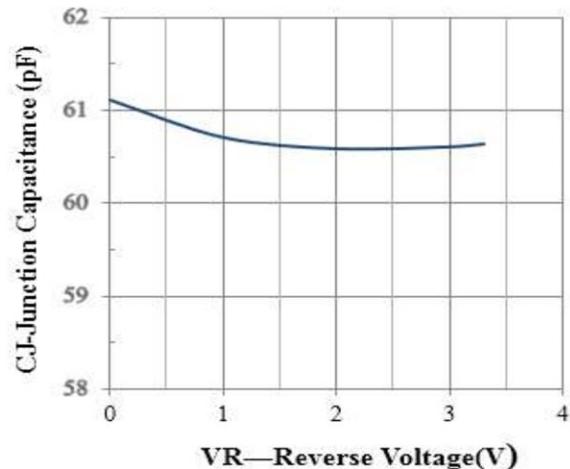
Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

| Parameter | Symbol | Value | Unit |
|---------------------------------|------------------|-------------|------|
| Peak Pulse Power (8/20μs) | Ppk | 400 | W |
| Peak Pulse Current (8/20μs) | I _{PP} | 35 | A |
| ESD per IEC 61000-4-2 (Air) | V _{ESD} | ±30 | kV |
| ESD per IEC 61000-4-2 (Contact) | | ±30 | |
| Operating Temperature Range | T _J | -55 to +125 | °C |
| Storage Temperature Range | T _{Stg} | -55 to +150 | °C |

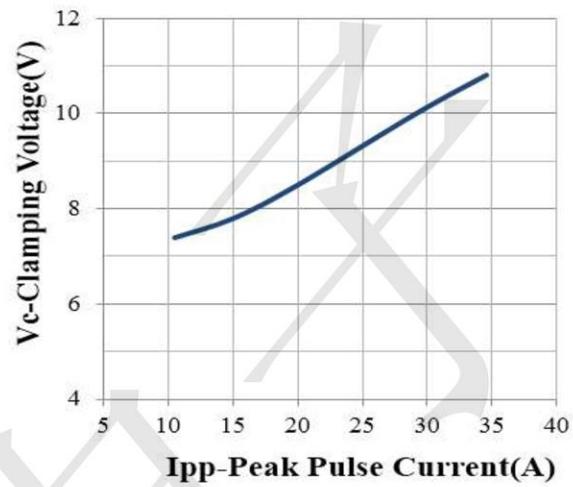
Electrical Characteristics (TA=25°C unless otherwise specified)

| Parameter | Symbol | Min | Typ | Max | Unit | Test Condition |
|-------------------------|-------------------|-----|-----|------|------|--|
| Reverse Working Voltage | V _{RWM} | | | 3.3 | V | |
| Breakdown Voltage | V _{BR} | 4.0 | | 6.0 | V | I _T =1mA |
| Leakage Current | I _{Leak} | | | 200 | nA | V _{RWM} =3.3V |
| Clamping Voltage | V _C | | | 8.5 | V | I _{PP} =20A, T _p =8/20μs |
| Clamping Voltage | V _C | | | 12.0 | V | I _{PP} =35A, T _p =8/20μs |
| Dynamic Resistance | R _{DYN} | | 0.1 | | Ω | TLP=0.2/100ns |
| Junction Capacitance | C _J | | | 70 | pF | V _R =0V, f=1MHz |

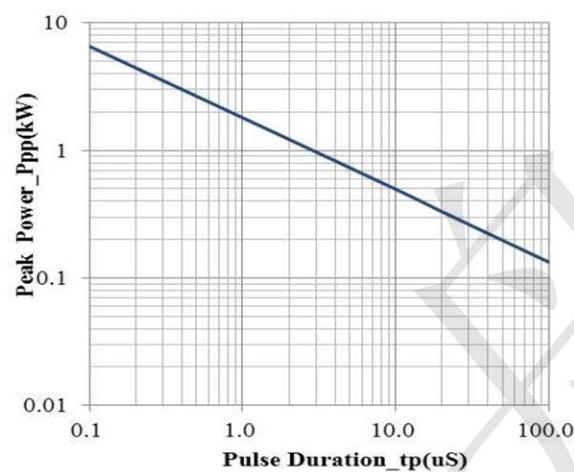
Characteristic Curves



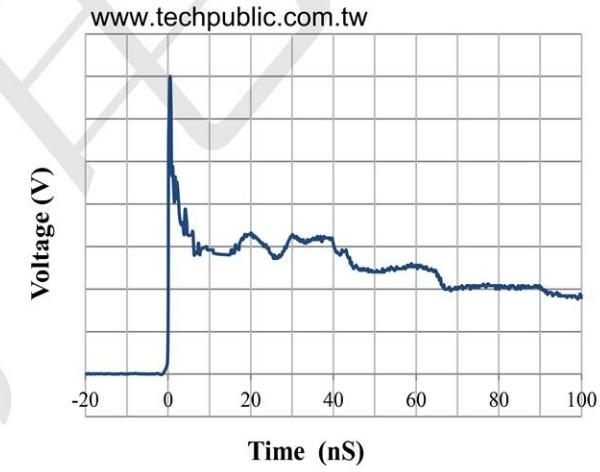
Junction Capacitance vs. Reverse Voltage



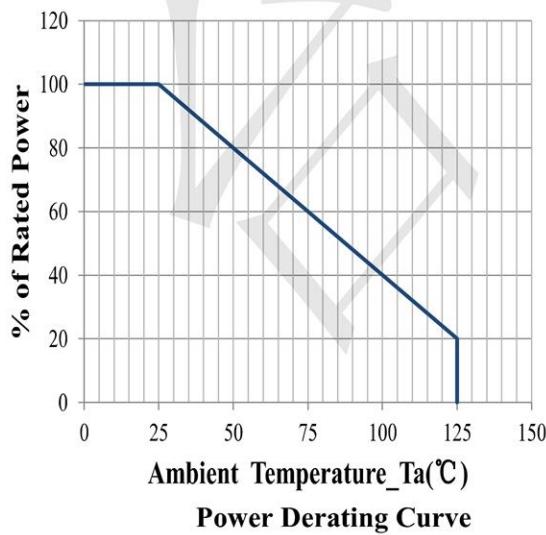
Clamping Voltage vs. Peak Pulse Current



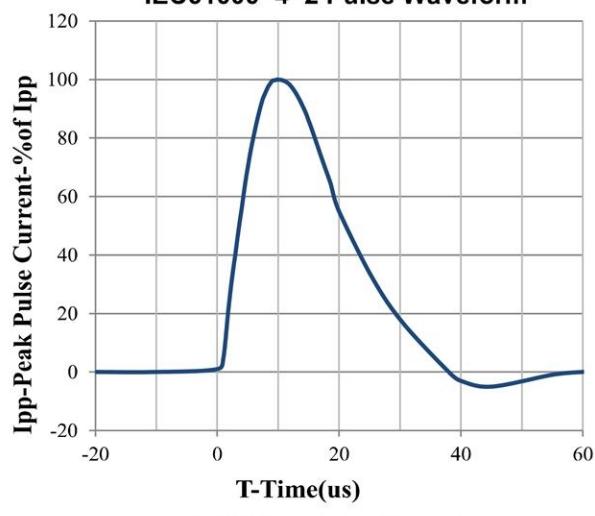
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform

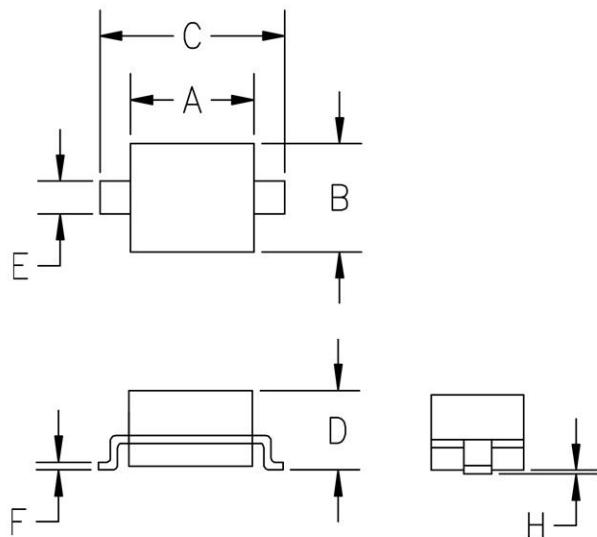


Power Derating Curve



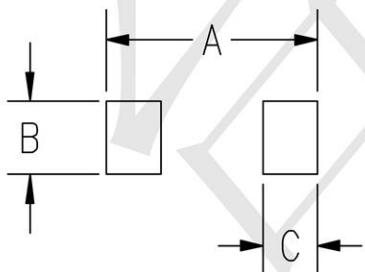
8 X 20us Pulse Waveform

Outline Drawing - SOD323



| SYM | DIMENSIONS | | | |
|-----|-------------|------|--------|-------|
| | MILLIMETERS | | INCHES | |
| | MIN | MAX | MIN | MAX |
| A | 1.50 | 1.80 | 0.060 | 0.071 |
| B | 1.20 | 1.40 | 0.045 | 0.054 |
| C | 2.30 | 2.70 | 0.090 | 0.107 |
| D | - | 1.10 | - | 0.043 |
| E | 0.30 | 0.40 | 0.012 | 0.016 |
| F | 0.10 | 0.25 | 0.004 | 0.010 |
| H | - | 0.10 | - | 0.004 |

Land Pattern - SOD323



| SYM | DIMENSIONS | |
|-----|-------------|--------|
| | MILLIMETERS | INCHES |
| A | 3.15 | 0.120 |
| B | 0.80 | 0.031 |
| C | 0.80 | 0.031 |

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