

Features

- 6800W peak pulse power (8/20 μ s)
- Low leakage: nA level
- Low operating voltage: 5V
- Ultra low clamping voltage
- One power line protects
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: \pm 30kV
 - Contact discharge: \pm 30kV
 - IEC61000-4-5 (Lightning) 310A (8/20 μ s)
- RoHS Compliant
- Lead Finish: NiPdAu

Applications

- Power Management
- Industrial Application
- Power Supply Protection
- Many other portable devices

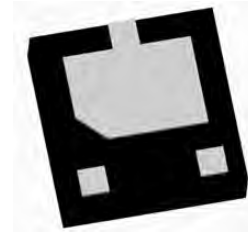
Mechanical Characteristics

- Package: DFN2020-3
- Lead Finish: NiPdAu
- Case Material: “Green” Molding Compound
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below
- Marking Information: See Below

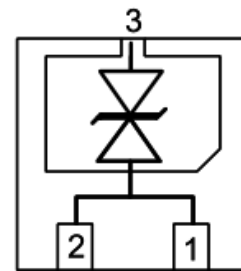
Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

| Parameter | Symbol | Value | Unit |
|---------------------------------|------------------|-------------|------|
| Peak Pulse Power (8/20 μ s) | Ppp | 6800 | W |
| ESD per IEC 61000-4-2 (Air) | V _{ESD} | \pm 30 | Kv |
| ESD per IEC 61000-4-2 (Contact) | | \pm 30 | |
| Operating Temperature Range | T _J | -55 to +125 | °C |
| Storage Temperature Range | T _{STJ} | -55 to +150 | °C |

Dimensions DFN2020-3



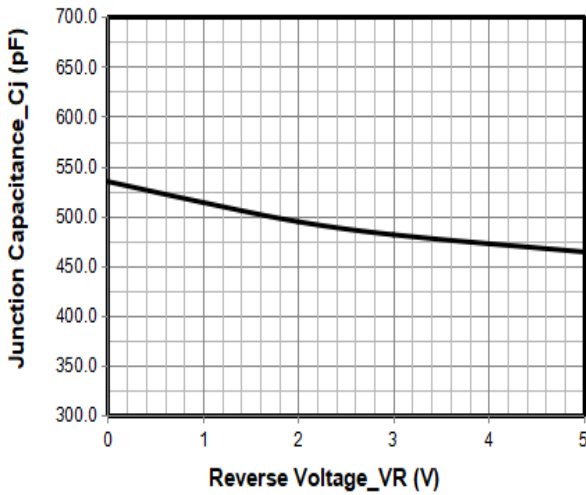
Pin Configuration



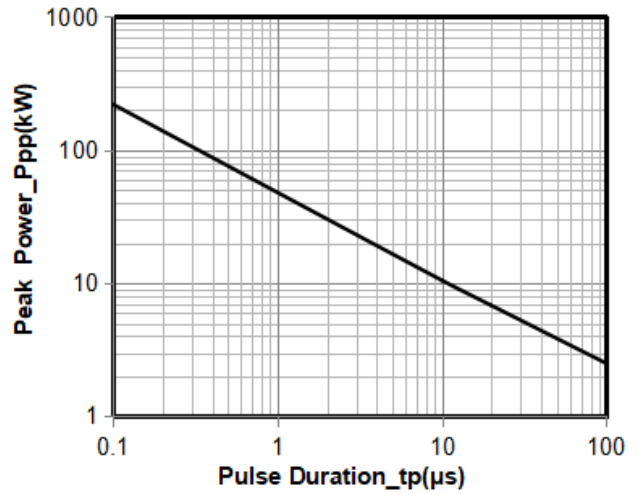
Electrical Characteristics(TA=25°C unless otherwise specified)

| Part Number | Device Marking | V _{RWM} (V) | V _{BR} (V) | I _T (mA) | V _C @50A | V _C | | I _R μA (Max) | C (Pf) (Typ.) |
|-------------|----------------|-------------------------|------------------------|------------------------|------------------------|----------------|------|-------------------------------|---------------------|
| | | | | | | (Max) | (@A) | | |
| ESD0511P3 | 52P | 5 | 6 | 1 | 9 | 22 | 310 | 0.5 | 530 |

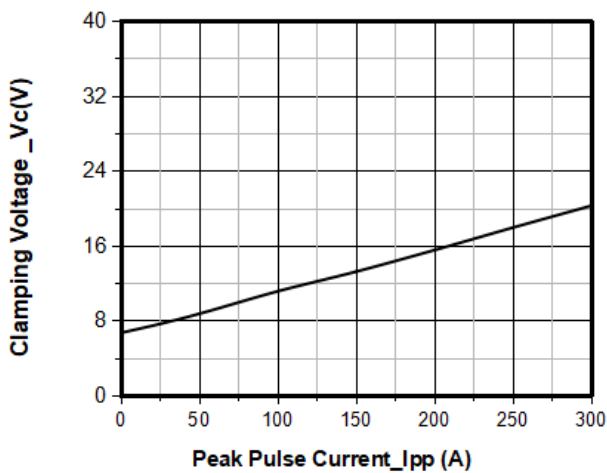
Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)



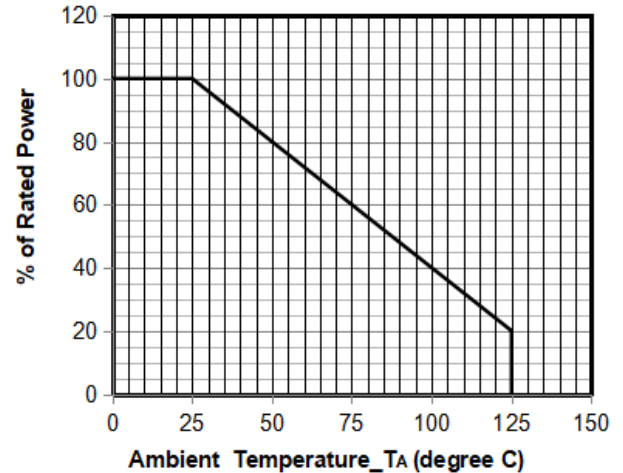
Junction Capacitance vs. Reverse Voltage



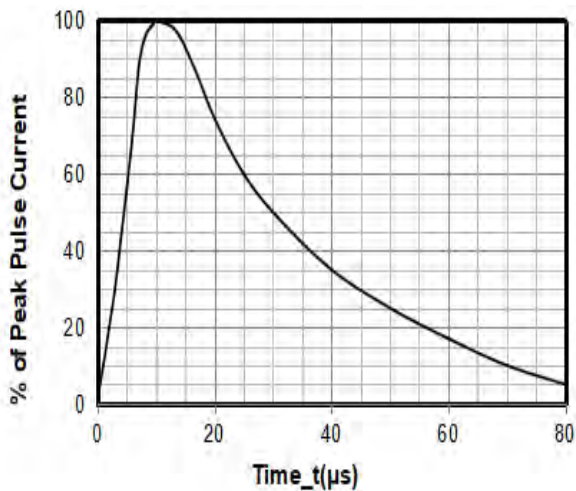
Peak Pulse Power vs. Pulse Time



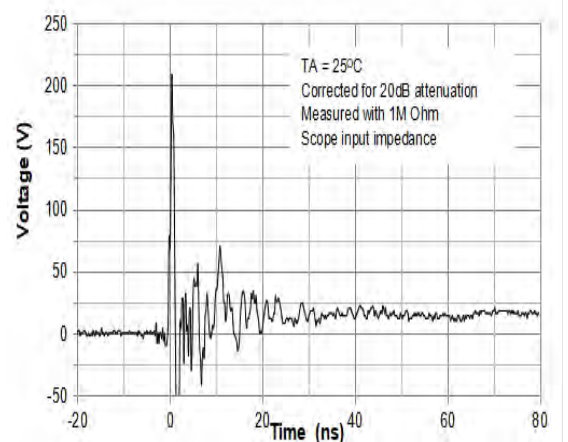
Clamping Voltage vs. Peak Pulse Current



Power Derating Curve



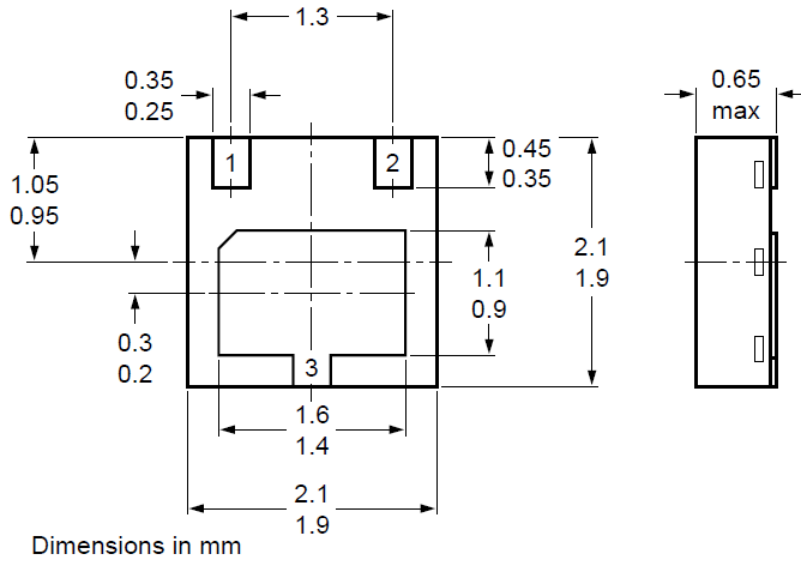
8 X 20μs Pulse Waveform



ESD Clamping Voltage

8 kV Contact per IEC61000-4-2

DFN2020-3 Package Outline Drawing



Suggested Land Pattern

