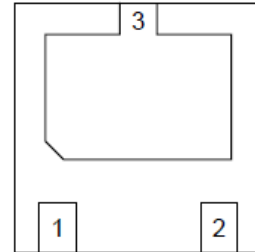


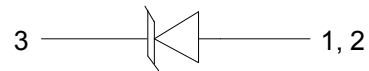
Features

- 6500W peak pulse power (8/20µs)
- Low leakage: nA level
- Low operating voltage: 12V
- Ultra low clamping voltage
- One power line protects
- 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 (Lightning) 230A (8/20µs)
- RoHS Compliant

Dimensions DFN2020-3



Pin Configuration



Applications

- Cell phone handsets and accessories
- Personal digital assistants (PDA's)
- Notebooks, desktops, and servers
- Portable instrumentation
- Cordless phones
- Digital cameras
- Peripherals
- MP3 players

Mechanical Characteristics

- Package: DFN2020-3
- Case Material: "Green" Molding Compound
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel:3,000pcs
- Reel Size:7 inch
- Device Marking: 12P

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

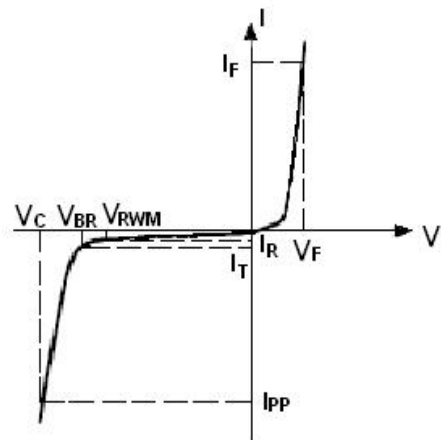
| Parameter | Symbol | Value | Unit |
|---------------------------------|------------------|-------------|------|
| Peak Pulse Power (8/20µs) | Ppp | 6500 | W |
| ESD per IEC 61000-4-2 (Air) | V _{ESD} | ±30 | kV |
| ESD per IEC 61000-4-2 (Contact) | | ±30 | |
| Operating Temperature Range | T _J | -40 to +125 | °C |
| Storage Temperature Range | T _{STJ} | -40 to +125 | °C |

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

| Parameter | Symbol | Test Condition | Min | Typ. | Max | Units |
|------------------------------|-----------|--|------|------|-----|---------------|
| Reverse Working Voltage | V_{RWM} | | | | 12 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_T = 1\text{mA}$ | 12.5 | | | V |
| Reverse Leakage Current | I_R | $V_{RWM} = 12\text{V}$ | | | 1 | μA |
| Clamping Voltage pin3-pin1,2 | V_{CL1} | $I_{PP} = 100\text{A}$, $t_p=8/20\mu\text{s}$ | | | 22 | V |
| Clamping Voltage pin3-pin1,2 | V_{CL2} | $I_{PP} = 230\text{A}$, $t_p=8/20\mu\text{s}$ | | | 30 | V |
| Junction Capacitance | C_J | $V_R = 0\text{V}$, $f = 1\text{MHz}$ | | 1400 | | pF |

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

| 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 |
| I_F | Forward Current |
| V_F | Forward Voltage @ I_F |



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

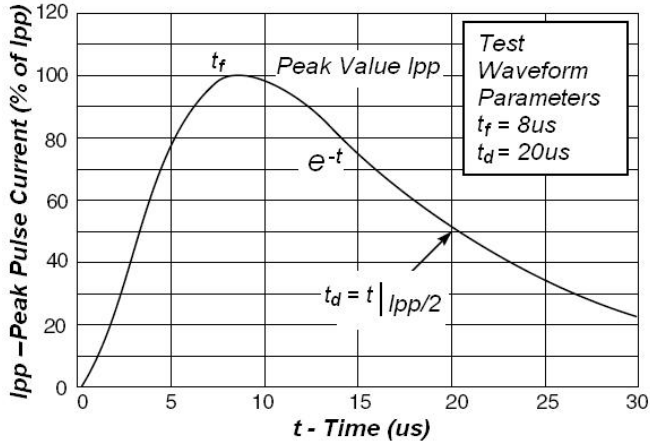


Fig.1 Pulse Waveform

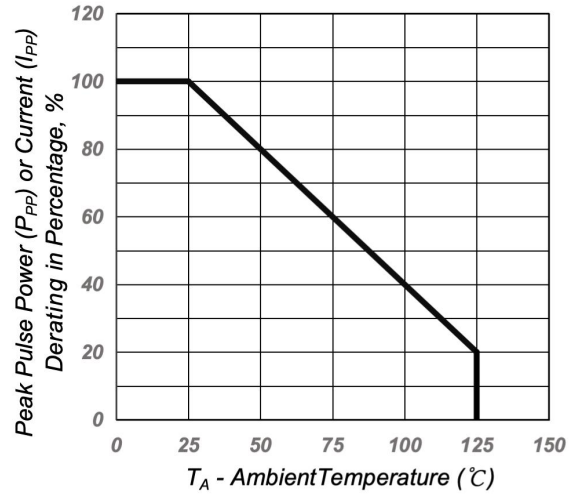
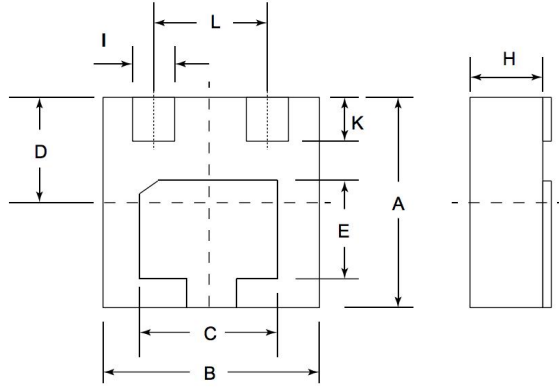


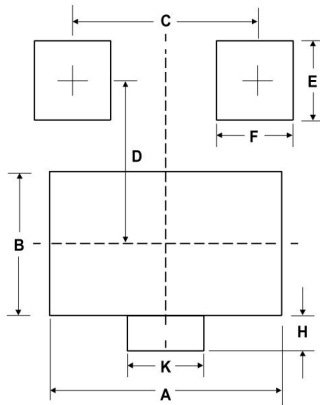
Fig.2 Pulse Derating Curve

DFN2020-3 Package Outline Drawing



| Dim | Millimeters | |
|-----|-------------|------|
| | Min | Max |
| A | 1.90 | 2.10 |
| B | 1.90 | 2.10 |
| C | 1.40 | 1.60 |
| D | 0.95 | 1.05 |
| E | 0.90 | 1.10 |
| H | ----- | 0.65 |
| L | 1.3 (TYP) | |
| I | 0.25 | 0.35 |
| K | 0.35 | 0.45 |

Suggested Land Pattern



| Dim | Millimeters |
|-----|-------------|
| A | 1.60 |
| B | 1.10 |
| C | 1.30 |
| D | 1.05 |
| E | 0.50 |
| F | 0.40 |
| K | 0.40 |
| H | 0.25 |

NOTICE

Leiditech reserves the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. Leiditech does not assume any liability arising out of the application or use of any product described herein.