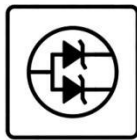
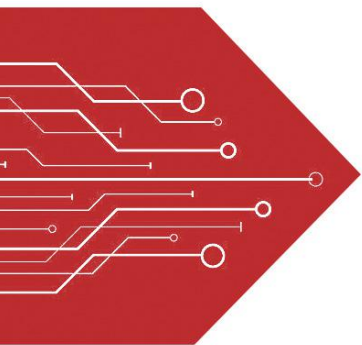


# MSKSEMI

SEMICONDUCTOR



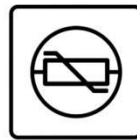
ESD



TVS



TSS



MOV



GDT



PLED

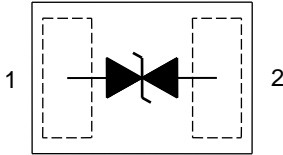
Product data sheet

[www.msksemi.com](http://www.msksemi.com)

## Features



**DFN1006**



- ◆ low Capacitance 15pF
- ◆ Low Clamping Voltage
- ◆ Small Body Outline Dimensions: 0.039” x 0.024”  
(1.0 mm x 0.60 mm)
- ◆ Low Body Height: 0.019” (0.5 mm)
- ◆ Stand-off Voltage: 3.3V
- ◆ Low Leakage
- ◆ Response Time is Typically < 1 ns
- ◆ IEC61000-4-2 Level 4 ESD Protection for data lines
- ◆ These are Pb-Free Devices

## Applications

- ◆ 10/100/Mbits/s Ethernet
- ◆ FireWire
- ◆ Display ports
- ◆ MDDI ports
- ◆ Digital Visual Interface (DVI)
- ◆ Cellular handsets & accessories
- ◆ Computer and peripherals

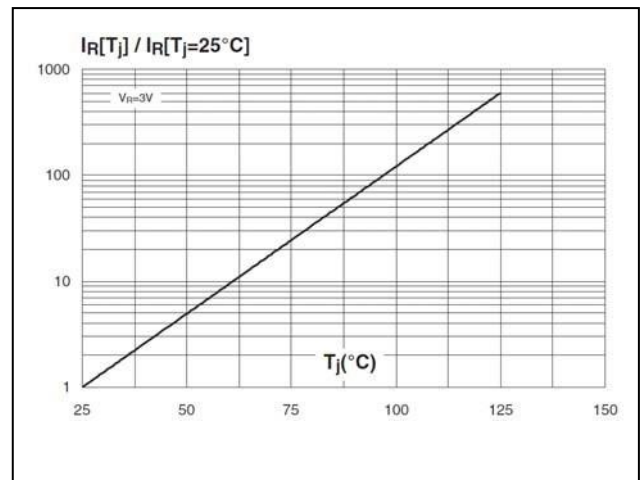
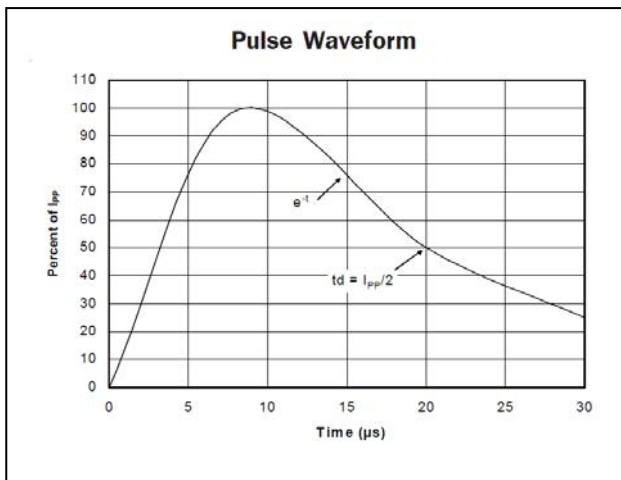
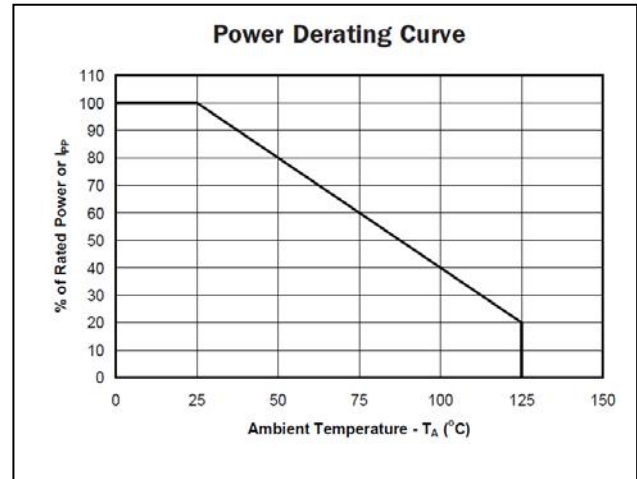
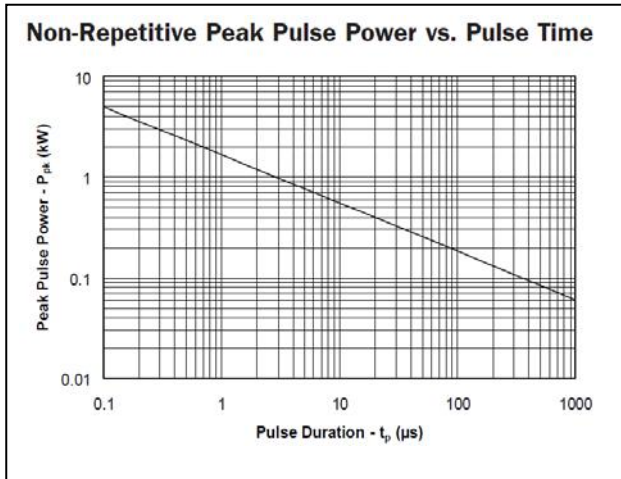
Maximum Rating @ Ta=25°C unless otherwise specified

| Symbol           | Parameter                  | Ratings     | Units |
|------------------|----------------------------|-------------|-------|
| ESD              | IEC 61000-4-2 (HBM-ESD)    | Contact     | 25    |
|                  |                            | Air         | 25    |
| T <sub>L</sub>   | Lead Soldering Temperature | 260(10sec.) | °C    |
| T <sub>J</sub>   | Operating Temperature      | -55 to +125 | °C    |
| T <sub>STG</sub> | Storage Temperature        | -55 to +150 | °C    |

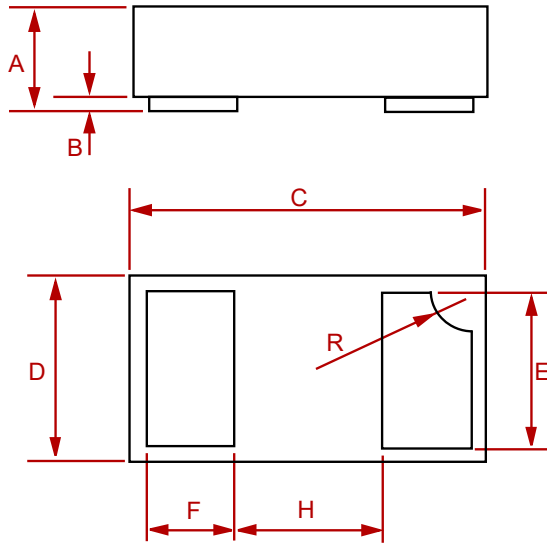
Electrical Characteristics @ Ta=25°C unless otherwise

| P/N      | VRWM @IR |     | VBR@ImA | VC@1A | VC@IPP |   | CJ  |
|----------|----------|-----|---------|-------|--------|---|-----|
|          | V        | μA  | V       | V     | V      | A | pF  |
|          |          | MAX | MIN     | MAX   | MAX    |   | TYP |
| ESD5431N | 3.3      | 1   | 5.0     | 7     | 10     | 8 | 15  |

Typical Characteristics @ Ta=25°C unless otherwise specified

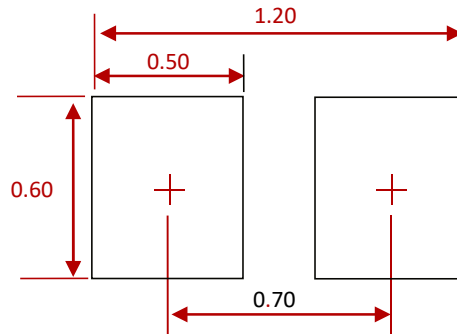


**PACKAGE MECHANICAL DATA**



| Dim | Inches    |       | Millimeters |       |
|-----|-----------|-------|-------------|-------|
|     | MIN       | MAX   | MIN         | MAX   |
| A   | 0.0125    | 0.02  | 0.32        | 0.52  |
| B   | 0.000     | 0.002 | 0.00        | 0.05  |
| C   | 0.037     | 0.043 | 0.95        | 1.080 |
| D   | 0.022     | 0.027 | 0.55        | 0.680 |
| E   | 0.016     | 0.024 | 0.40        | 0.60  |
| F   | 0.008     | 0.012 | 0.20        | 0.30  |
| H   | 0.015Typ. |       | 0.40Typ.    |       |
| R   | 0.001     | 0.005 | 0.05        | 0.15  |

**Suggested Pad Layout**



NOTES:

1. CONTROLLING DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).
2. THIS LAND PATTERN IS FOR REFERENCE PURPOSES ONLY. CONSULT YOUR MANUFACTURING GROUP TO ENSURE YOUR COMPANY'S MANUFACTURING GUIDELINES ARE MET.

**REEL SPECIFICATION**

| P/N      | PKG     | QTY   |
|----------|---------|-------|
| ESD5431N | DFN1006 | 10000 |

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