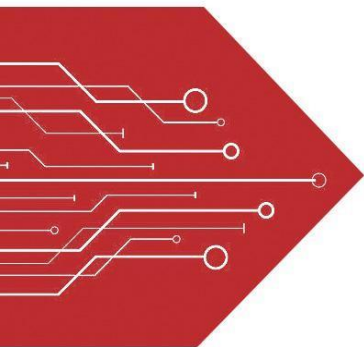


MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



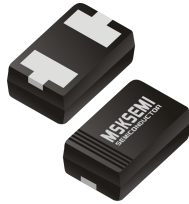
GDT



PLED

Product data sheet

www.msksemi.com



DFN1006

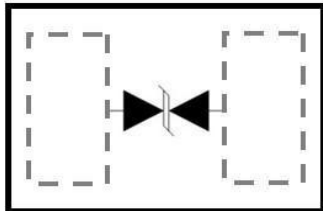
FEATURES

- ✧ IEC61000-4-2 (ESD) ±8kV (Contact)
±15kV (Air)
- ✧ IEC61000-4-4 (EFT) 40A (5/50ns)
- ✧ IEC61000-4-5 (Lighting) 3A (8/20µs)
- ✧ 100 Watts Peak Pulse Power (tp=8/20µs)
- ✧ Working voltages : 24V
- ✧ Low clamping voltage
- ✧ Low leakage current

MACHANICAL DATA

- ✧ DFN1006 package
- ✧ Flammability Rating: UL 94V-0
- ✧ Packaging: Tape and Reel
- ✧ Reel size: 7 inch

PIN CONFIGURATION



APPLICATIONS

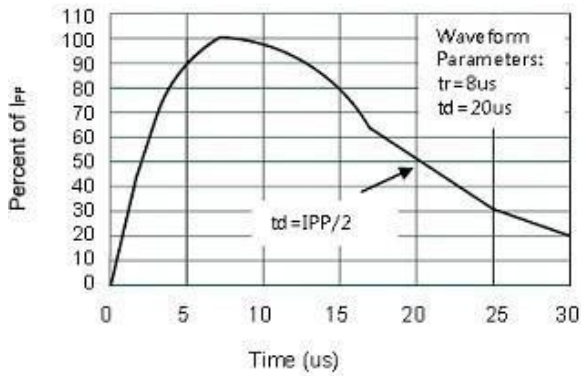
- ✧ Serial and Parallel Ports
- ✧ Notebooks, Desktops, Servers
- ✧ Projection TV
- ✧ Cellular handsets and accessories
- ✧ Portable instrumentation
- ✧ Peripherals

ABSOLUTE MAXIMUM RATING

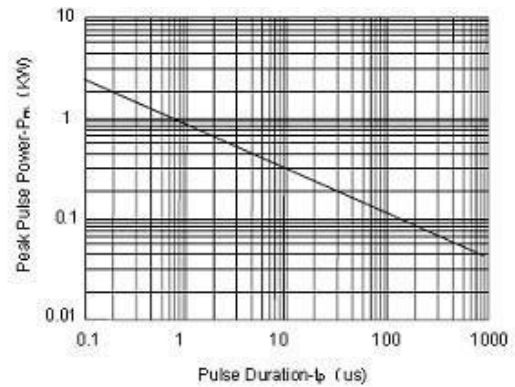
| Symbol | Parameter | Value | Units |
|-----------|---------------------------------|---------------|-------|
| V_{ESD} | ESD per IEC 61000-4-2 (Contact) | ±8 | kV |
| | ESD per IEC 61000-4-2 (Air) | ±15 | |
| P_{PP} | Peak Pulse Power (8/20µs) | 150 | W |
| T_{OPT} | Operating Temperature | -55 ~ +125 | °C |
| T_{STG} | Storage Temperature | -55 ~ +150 | °C |
| T_L | Lead Soldering Temperature | 260 (10 sec.) | °C |

| ELECTRICAL CHARACTERISTICS (Tamb=25°C) | | | | | | |
|--|---------------------------|--------------------------------|-----|-----|-----|---------|
| Symbol | Parameter | Test Condition | Min | Typ | Max | Units |
| V_{RWM} | Reverse Working Voltage | | | | 24 | V |
| V_{BR} | Reverse Breakdown Voltage | $I_T = 1mA$ | 26 | | 32 | V |
| I_R | Reverse Leakage Current | $V_{RWM} = 24V$ | | | 1 | μA |
| V_{C1} | Clamping Voltage 1 | $I_{PP} = 1A, t_p = 8/20\mu s$ | | | 40 | V |
| V_{C2} | Clamping Voltage 2 | $I_{PP} = 3A, t_p = 8/20\mu s$ | | | 50 | V |
| C_J | Junction Capacitance | $V_R = 0V, f = 1MHz$ | | 8 | | pF |

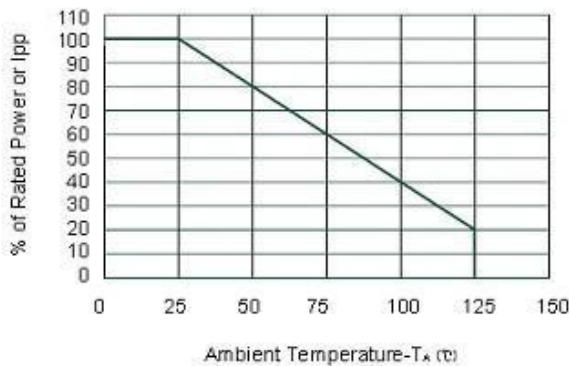
ELECTRICAL CHARACTERISTICS CURVE



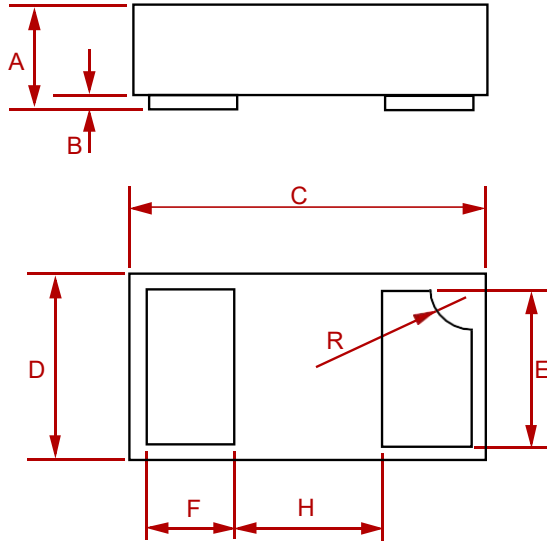
Pulse Waveform



Non- Repetitive Peak Pulse Power vs. Pulse Time

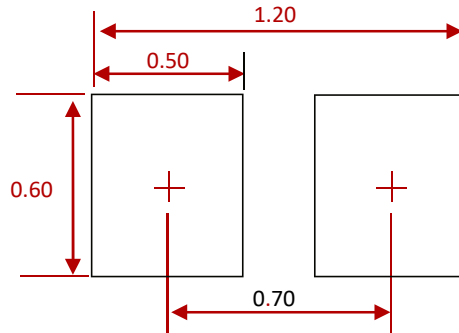


PACKAGE MECHANICAL DATA



| 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 |
|--------------|---------|-------|
| MSESD10EMC24 | DFN1006 | 10000 |

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