

MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



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PLED

Product data sheet

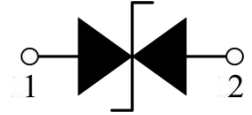
Features

- low Capacitance 10pF
- 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: 5.0V
- Low Leakage
- Response Time is Typically < 1 ns
- IEC61000-4-2 Level 4 ESD Protection for datalines
- These are Pb-Free Devices

Pin Description



Schematic Diagram



Applications

DFN1006-2

- 10/100/1000 Mbits/s Ethernet
- FireWire
- Display ports
- MDDI ports
- Digital Visual Interface (DVI)
- Cellular handsets & accessories
- Computer and peripherals

Electrical Characteristics@ Ta=25°C unless otherwise

P/N	VRWM @IR		VBR@1mA	Vc@1A	Vc@IPP		CJ
	V	µA	V	V	V	A	pF
		MAX	MIN	MAX	MAX		TYP
MSESD5451X	5	1	5.8	11	15	5	10

Maximum Rating @ Ta=25°C unless otherwise specified

Symbol	Parameter	Ratings	Units
ESD	IEC 61000-4-2 (HBM-ESD)	Contact	8
		Air	15
TL	Lead Soldering Temperature	260(10sec.)	°C
TJ	Operating Temperature	-55 to +125	°C
TSTG	Storage Temperature	-55 to +150	°C

Electrical Parameter

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

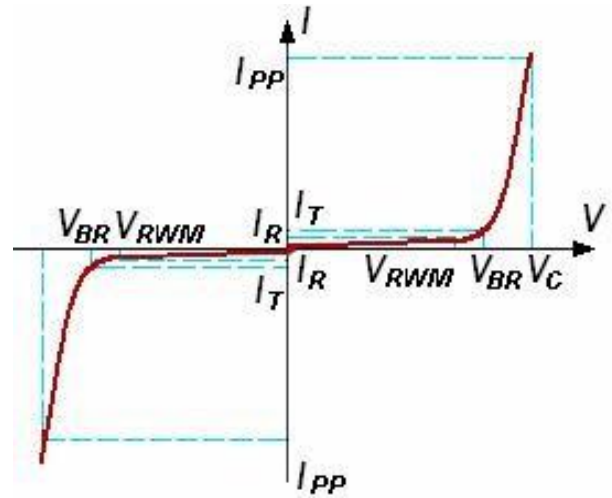


FIG1: Pulse Waveform

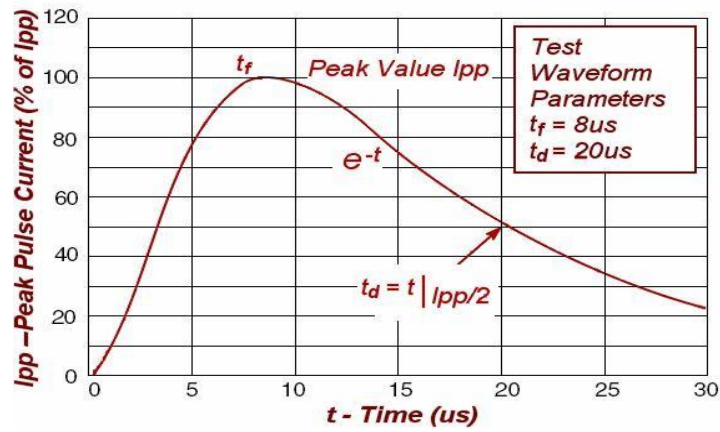
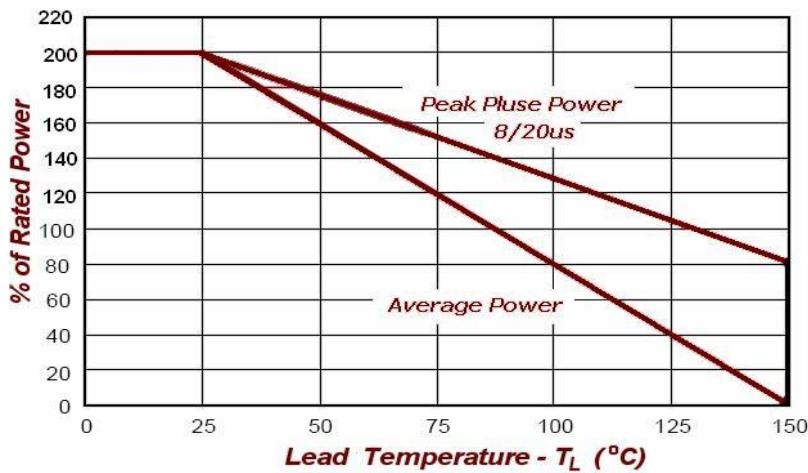
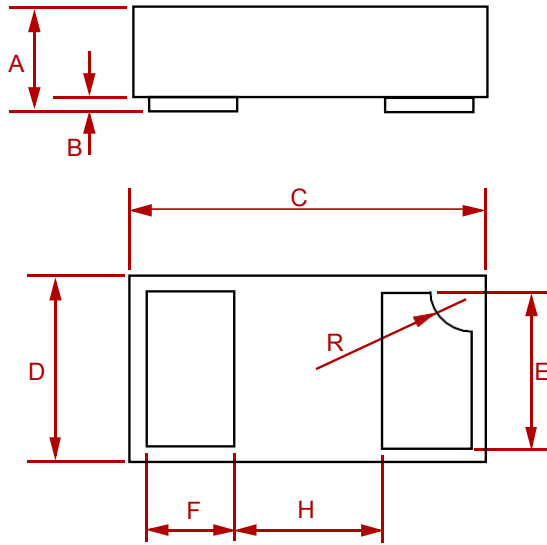


FIG2: Power Derating

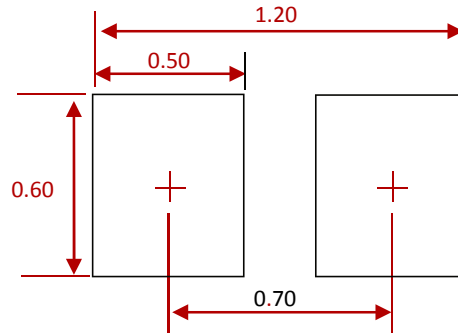


PACKAGE MECHANICAL DATA



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
MSESD5451X	DFN1006-2	10000

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