

# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

Product data sheet

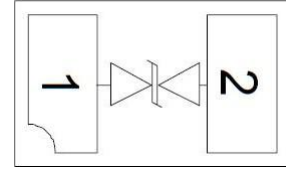
[www.msksemi.com](http://www.msksemi.com)

## Features

- 30W (8/20 $\mu$ s) Peak Pulse Power
- Low Capacitance ESD Protection
- RoHS Compliant
- Matte Tin Lead finish (Pb-Free)
- Protect One High Speed Data Line
- Meet IEC61000-4-2 Level 4:
- Contact Discharge > 8kV Air
- Discharge > 15kV

## Applications

- Communication System
- Portable Instrumentation
- Audio and Video Equipment
- Computers and Peripherals
- USB 1.1, USB 2.0 Ports



DFN1006

## Maximum Ratings (Ta = 25°C)

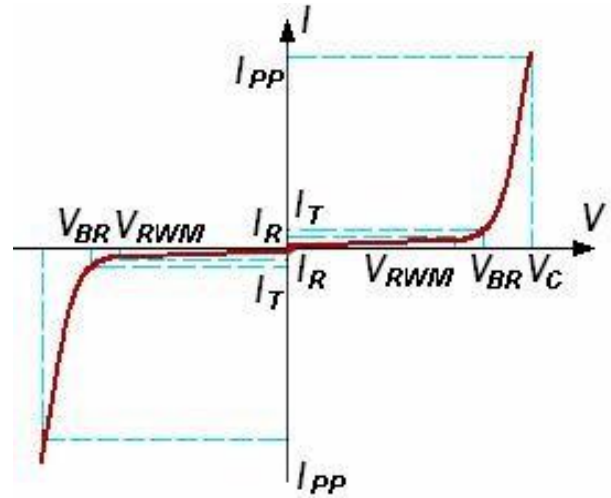
Symbol	Parameter	Value	Unit
PPK	Peak Pulse Power	30	W
IPP	Peak Pulse Current	2	A
VESD (Contact)	Contact ESD Voltage per IEC61000-4-2	8	kV
VESD (Air)	Air ESD Voltage per IEC61000-4-2	15	kV
TJ	Junction Temperature	-55 to +150	°C
TSTG	Storage Temperature	-55 to +150	°C

## Electrical Characteristics (Ta = 25°C)

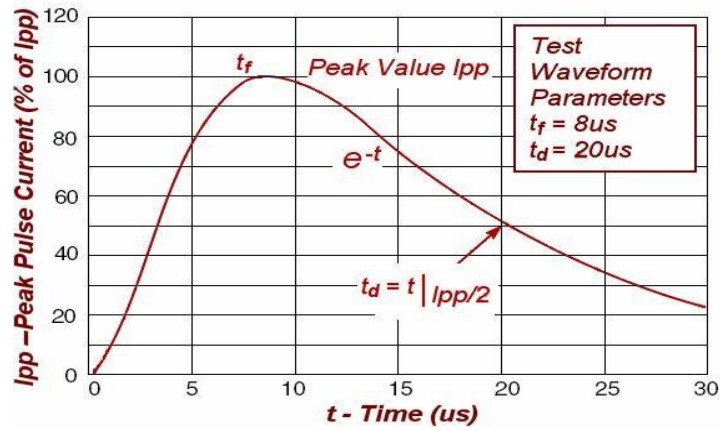
Symbol	Parameter	Conditions	Min	Typ	Max	Unit
VRWM	Reverse Working Peak Voltage				5	V
VBR	Reverse Breakdown Voltage	IT = 1mA	5.5		9.5	V
IR	Reverse Leakage Current	VRWM = 5V			0.1	$\mu$ A
VC	Clamping Voltage	IPP = 1A (8/20 $\mu$ s)			12	V
VC	Clamping Voltage	IPP = 2A (8/20 $\mu$ s)			15	V
CJ	Capacitance	VR = 0V, f = 1MHz		3.0	3.5	pF

**Electrical Parameter**

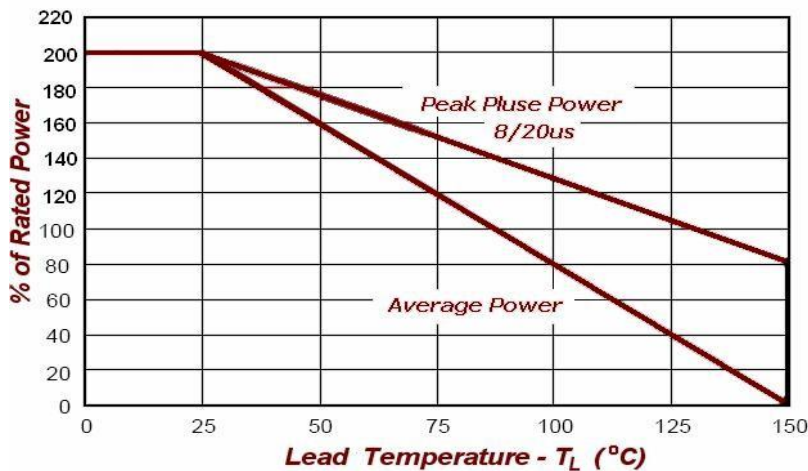
Symbol	Parameter
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$V_{RWM}$	Working Peak Reverse Voltage
$I_R$	Maximum Reverse Leakage Current @ $V_{RWM}$
$I_T$	Test Current
$V_{BR}$	Breakdown Voltage @ $I_T$



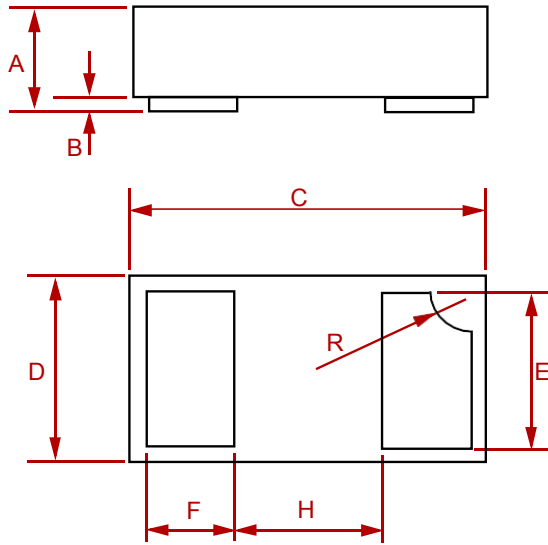
**FIG1: Pulse Waveform**



**FIG2: Power Derating**

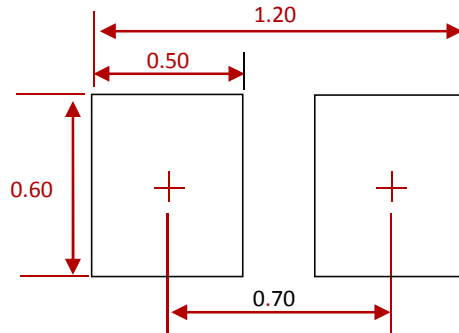


**PACKAGE MECHANICAL DATA**



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
AU0511P1-MS	DFN1006	10000

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