

# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

Product data sheet

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

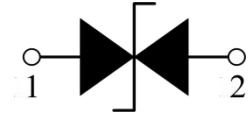
**Specification Features**

- Small Body Outline Dimensions:  
nom 0.039" x 0.024" (1.0x0.6 mm)
- Low Body Height: nom 0.019" (0.5 mm)
- Low Capacitance 15 pF
- Low Clamping Voltage
- Reverse Working (Stand-off) Voltage: 5V
- Low Leakage
- Response Time is Typically < 1 ns
- IEC61000-4-2 Level 4 ESD Protection
- This is a Pb-Free Device

**Pin Description**



**Schematic Diagram**



DFN1006P2X

**Mechanical Characteristics:**

- CASE: Void-free, transfer-molded, thermosetting plastic Epoxy Meets UL 94 V-0
- LEAD FINISH: NiPdAu
- MOUNTING POSITION: Any
- QUALIFIED MAX REFLOW TEMPERATURE: 260°C
- Device Meets MSL 1 Requirements
- RoHS/WEEE Compliant
- Marking: Marking code

**Applications**

- Cellular Handsets & Accessories
- Personal Digital Assistants (PDAs)
- Notebooks & Handhelds
- Portable Instrumentation
- Digital Cameras
- Peripherals
- MP3 Players

**ELECTRICAL CHARACTERISTICS**

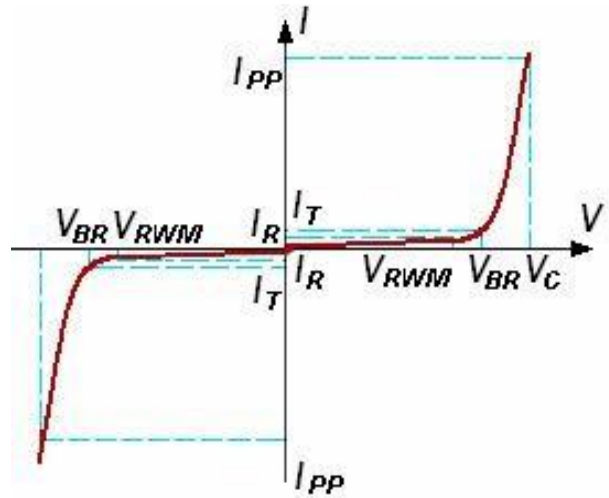
P/N	V <sub>RWM</sub> (V)	I <sub>R1</sub> (μA) @ V <sub>RWM</sub>	I <sub>R2</sub> (μA) @ V <sub>R</sub> =3.5V	V <sub>BR</sub> (V) @ I <sub>T</sub> (Note 2)		I <sub>T</sub>	V <sub>C</sub> (V) @ I <sub>PP</sub> = 1 A (Note 3)	V <sub>C</sub> (V) @ MAX I <sub>PP</sub> (Note 3)	I <sub>PP</sub> (A) (Note 3)	P <sub>PK</sub> (W) (Note 3)	C (pF)
	Max	Max	Max	Min	Max	mA	Max	Max	Max	Max	Max
AZ5725-01F-MS	5.0	0.5	0.3	5.6	8.0	1.0	9.8	12.5	5.5	69	15

**Maximum Ratings**

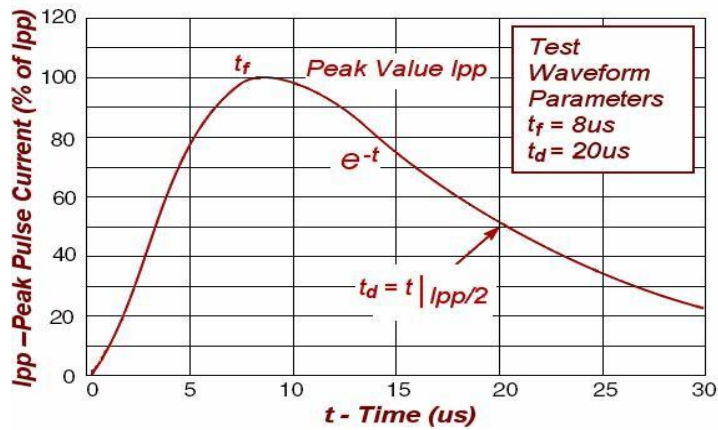
Rating	Symbol	Value	Unit
IEC 61000-4-2 (ESD) Contact		±30	kV
Peak Power Per 8 x 20μs Waveform	P <sub>PK</sub>	70	W
Total Power Dissipation on FR-5 <sup>®</sup> Board @ TA = 25°C	P <sub>D</sub>	300	mW
Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	-55 to +150	°C
Lead Solder Temperature - Maximum (10 Second Duration)	T <sub>L</sub>	260	°C

**Electrical Parameter**

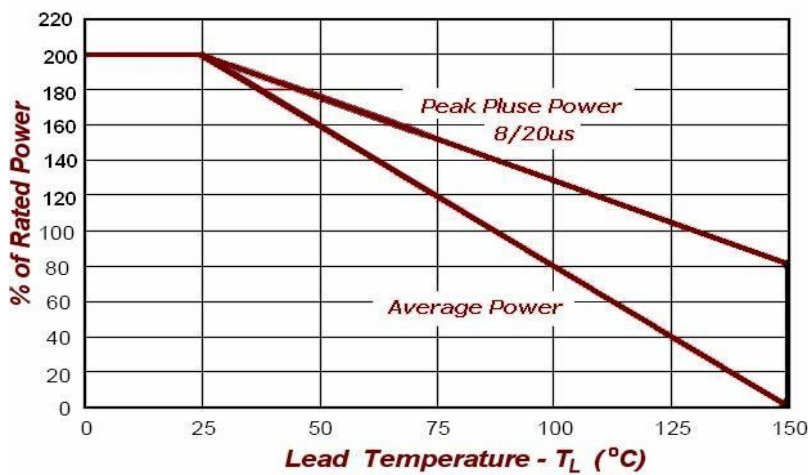
Symbol	Parameter
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$V_{RWM}$	Working Peak Reverse Voltage
$I_R$	Maximum Reverse Leakage Current @ $V_{RWM}$
$I_T$	Test Current
$V_{BR}$	Breakdown Voltage @ $I_T$



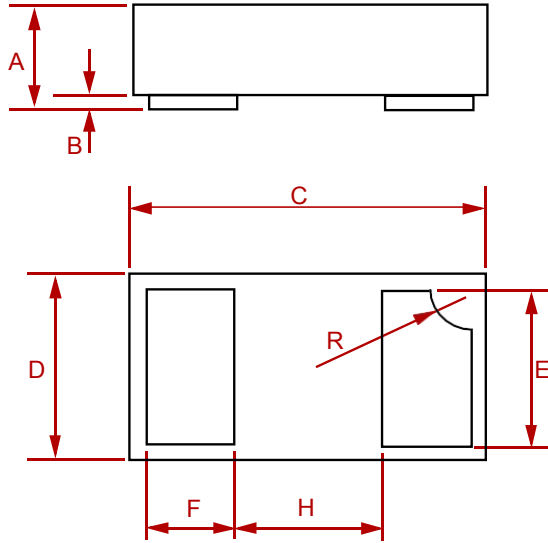
**FIG1: Pulse Waveform**



**FIG2: Power Derating**

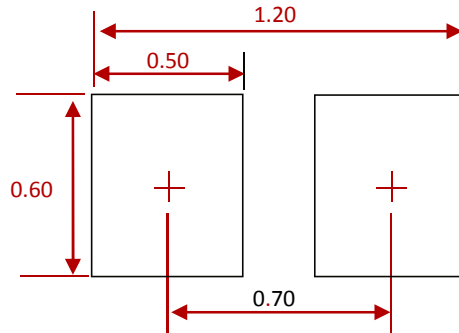


**PACKAGE MECHANICAL DATA**



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
AZ5725-01F-MS	DFN1006P2X	10000

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