



Micro Commercial Components



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20736 Marilla Street Chatsworth
Chatsworth, CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

SM22

12Volts
ESD Protection
Devices

Features

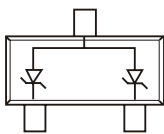
- For sensitive ESD protection
Stand-off Voltage:22V
Low leakage
ESD rating of class 3(>20KV)per Human Body Mode
Fast response ,response time less than 1ns.
Lead Free Finish/RoHS Compliant ("P" Suffix designates
RoHS Compliant. See ordering information)
Epoxy meets UL 94 V-0 flammability rating
Moisture Sensitivity Level 1

Maximum Ratings

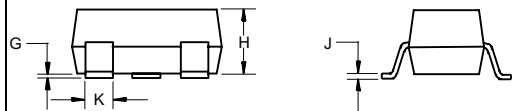
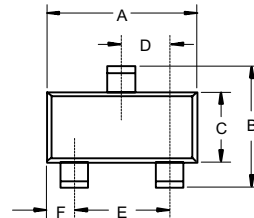
- Operating Junction Temperature: -55°C to +125°C
Storage Temperature: -55°C to +150°C

Table with 5 columns: Parameter, Symbol, Limits, unit. Rows include IEC61000-4-2(ESD) Air Contact, ESD Voltage per human body mode, Power Dissipation, and Lead Solder Temperature-Maximum.

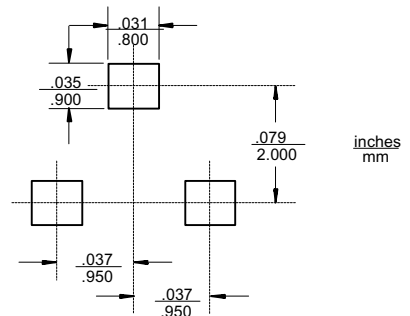
Pin Configuration-Top View



SOT-23



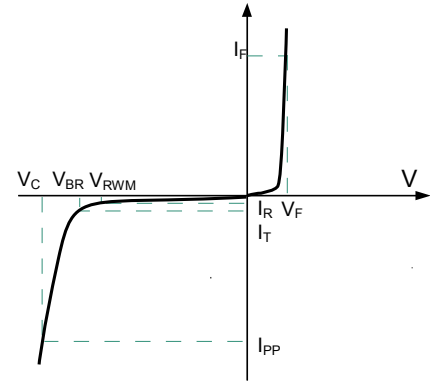
Dimension table with columns DIM, INCHES (MIN, MAX), MM (MIN, MAX), and NOTE. Lists dimensions A through K.



ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

UNIDIRECTIONAL (Circuit tied to Pins 1 and 3 or 2 and 3)

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}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I_F
P_{pk}	Peak Power Dissipation
C	Capacitance @ $V_R=0$ and $f=1\text{MHz}$



ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted, $V_F = 0.9\text{ V Max.}$ @ $I_F = 10\text{mA}$ for all types)

Device	V_{RWM} (V)	I_R (μA) @ V_{RWM}	V_{BR} (V) @ I_T (Note 2)		I_T	V_C @ $I_{PP}=1\text{ A}$	V_C @ $I_{PP}=3\text{A}$	P_{pk}^+ (W)	C (pF) Pin 1 to 3
	Max	Max	Min	Max	mA	V	V	Max	Typ
SM22	22	1.0	23.5	26.5	1.0	38	44	300	80

V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25°C .



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TYPICAL CHARACTERISTICS

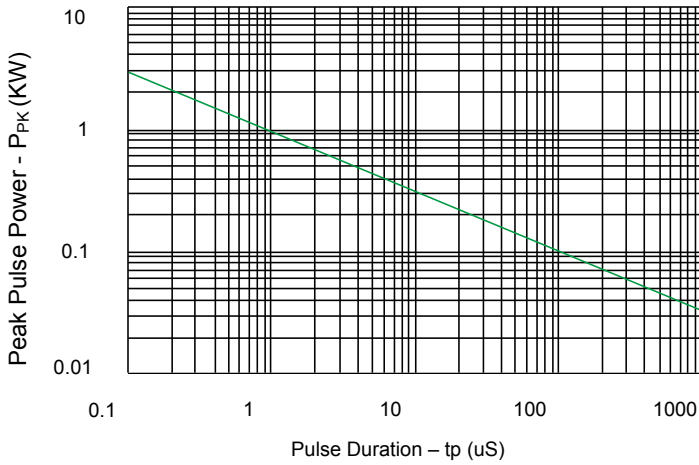


Fig1. Non-Repetitive Peak Pulse Power vs. Pulse time

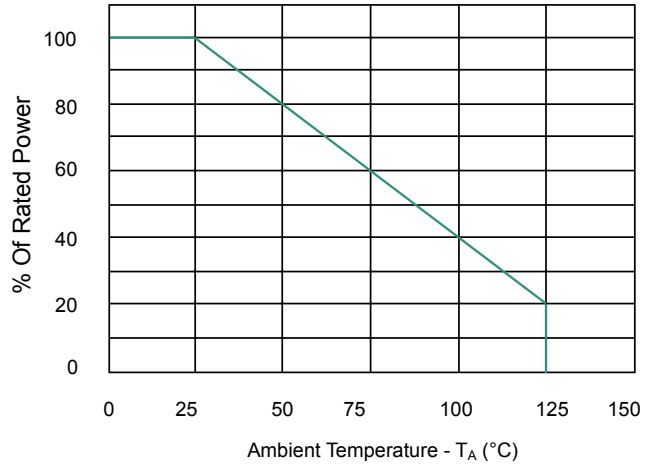


Fig2. Power Derating Curve

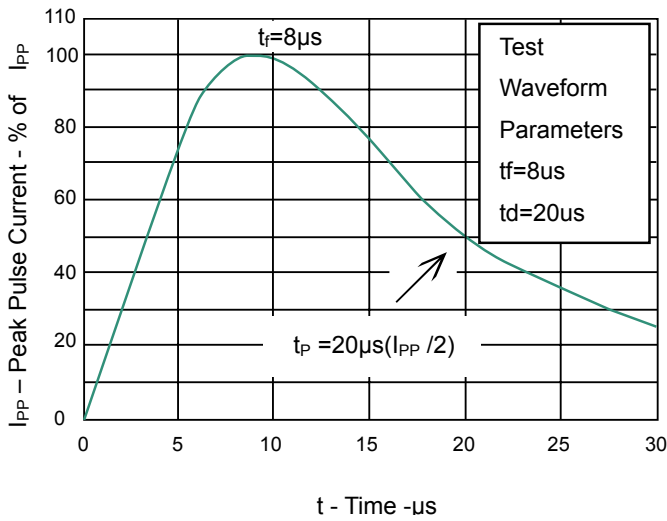


Fig 3. Pulse Waveform



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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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