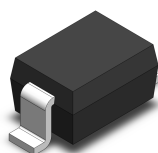


Transient Voltage Suppressors for ESD Protection

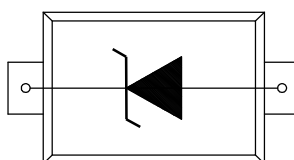
FEATURES:

- Ultra low leakage: nA level
- Operating voltage: 5V
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 15\text{kV}$
 - Contact discharge: $\pm 8\text{kV}$

Circuit Diagram & Pin Configuration:



SOD-323



DEVICE MARKING AND ORDERING INFORMATION

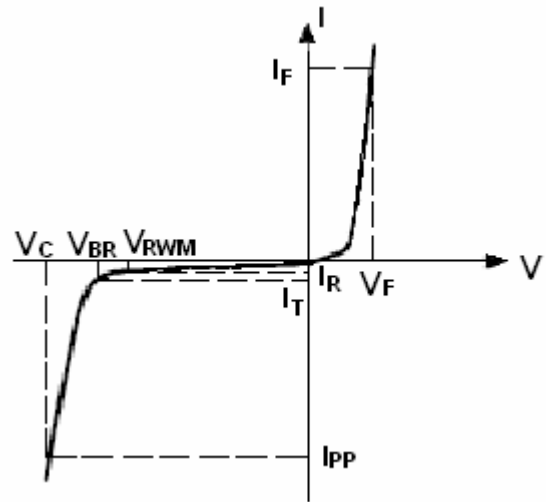
Device	Marking	Shipping
TESDM051AD32	05	3000/Tape&Reel

Absolute Ratings ($T_{\text{amb}}=25^{\circ}\text{C}$)

Symbol	Parameter	Value	Units
P_{PK}	Peak Pulse Power ($t_p = 8/20\mu\text{s}$)	250	W
V_{ESD}	ESD Voltage(HBM Waveform per IEC 61000-4-2)	30	kV
T_L	Maximum lead temperature for soldering during 10s	260	$^{\circ}\text{C}$
T_{STG}	Storage Temperature Range	-55 to +150	$^{\circ}\text{C}$
T_J	Maximum junction temperature	-55 to +125	$^{\circ}\text{C}$

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
I_F	Forward Current
V_F	Forward Voltage @ I_F



Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. $V_F = 0.9V$ at $I_F = 10mA$

Device	V_{RWM} (V)	$I_R(\mu A)$ @ $V_{RWM}=5V$	V_{BR} (V)@ $I_T=1mA$	V_C (V) @ $I_{PP}=5 A$ $t_p=8/20\mu s$	V_C (V) @ $I_{PP}=24$ $t_p=8/20\mu s$	I_{PP} (A) $t_p=8/20\mu s$	C (pF)
	Max	Max	Min	Typ	Max	Max	Typ
TESDM051AD32	5.0	10	6.0	9.8	10.5	24	350

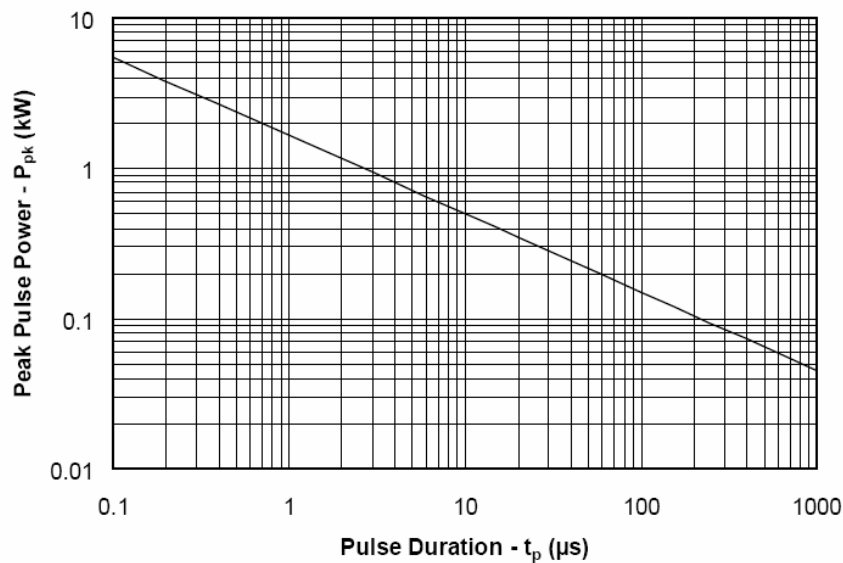
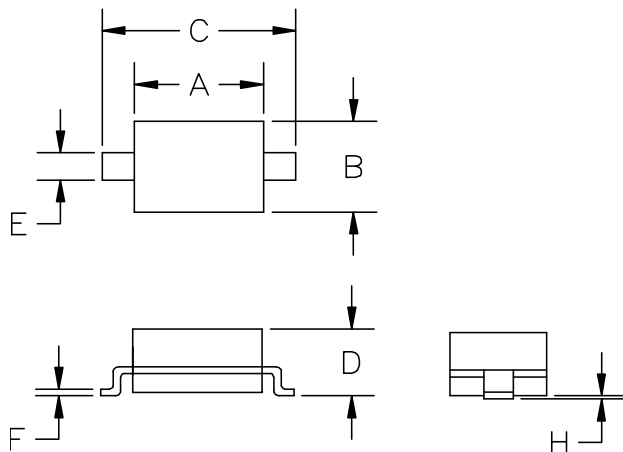


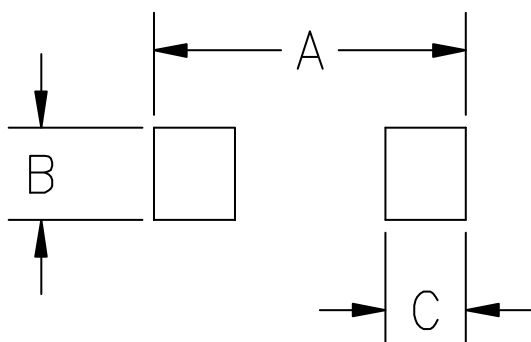
Fig.1 Non-Repetitive Peak Pulse Power vs. Pulse Time

SOD-323 Package Outline Drawing



SYM	DIMENSIONS			
	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.50	1.80	0.060	0.071
B	1.20	1.40	0.045	0.054
C	2.30	2.70	0.090	0.107
D	-	1.10	-	0.043
E	0.30	0.40	0.012	0.016
F	0.10	0.25	0.004	0.010
H	-	0.10	-	0.004

Suggested Land Pattern



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
A	3.15	0.120
B	0.80	0.031
C	0.80	0.031

NOTICE

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The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Tinysemi elec Co., Ltd., or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

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