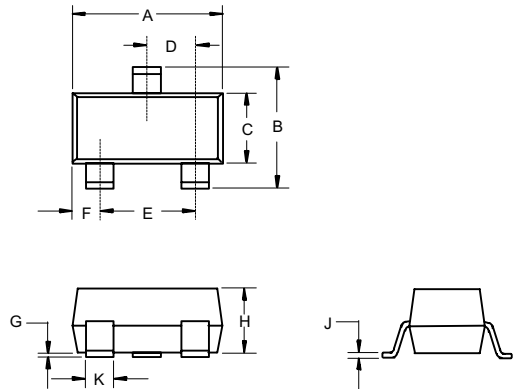




# SM24B

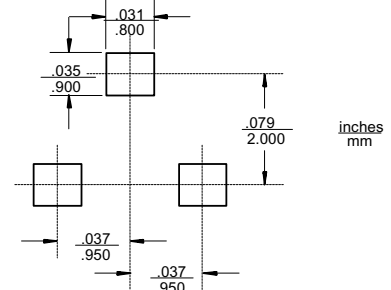
## 24 Volts ESD Protection Device

### SOT-23



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

#### Suggested Solder Pad Layout



## Features

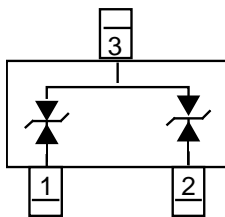
- Halogen free available upon request by adding suffix "-HF"
- Protects two bi-directional lines
- Ultra low leakage: nA level
- Operating voltage: 24V
- Low clamping voltage
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking: 24C/24M

## Maximum Ratings

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

Parameter	Symbol	Limits	unit
IEC61000-4-2(ESD) Air Contact		±30	KV
IEC61000-4-4 (EFT): @ 5/50ns		40	A
Peak Pulse Power		300	W

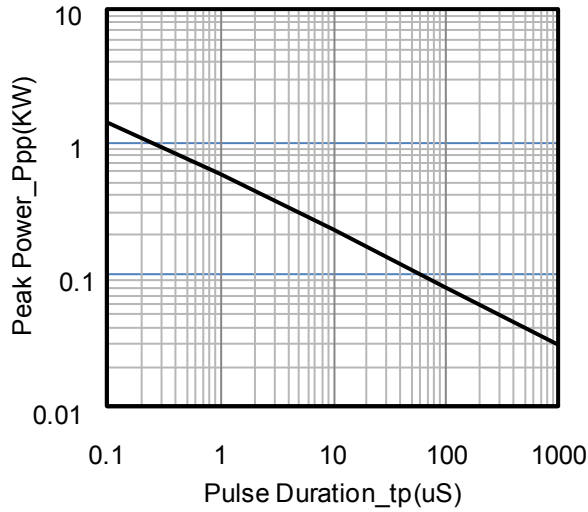
## Pin Configuration



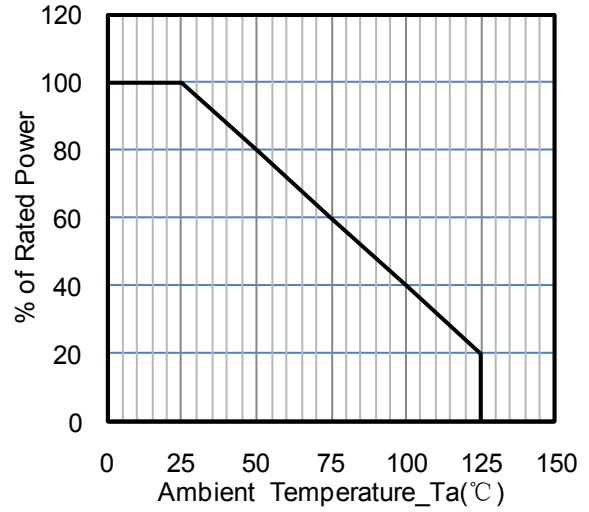
Electrical characteristics per line@25°C(unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse working voltage	$V_{RWM}$				24	V
Breakdown voltage	$V_{BR}$	$I_t = 1\text{mA}$	27			V
Reverse Leakage Current	$I_R$	$V_{RWM} = 24\text{V}$			0.2	$\mu\text{A}$
Clamping Voltage	$V_C$	$I_{PP}=1\text{A}(8/20\mu\text{s})$			42	V
Clamping Voltage	$V_C$	$I_{PP}=4\text{A}(8/20\mu\text{s})$		44	50	V
Peak Pulse Current	$I_{PP}$	$t_p = 8/20\mu\text{s}$			4	A
Junction Capacitance	$C_J$	$V_R=0\text{V}$ $f = 1\text{MHz}$ pin1 to pin3 or pin2 to pin3		20		pF

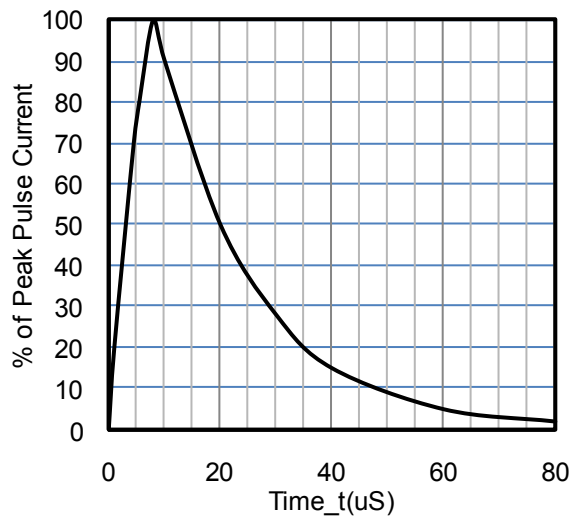
**Typical Performance Characteristics ( $T_A=25^\circ\text{C}$  unless otherwise Specified)**



**Peak Pulse Power vs. Pulse Time**



**Power Derating Curve**



**8 X 20us Pulse Waveform**



Micro Commercial Components

### Ordering Information :

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

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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