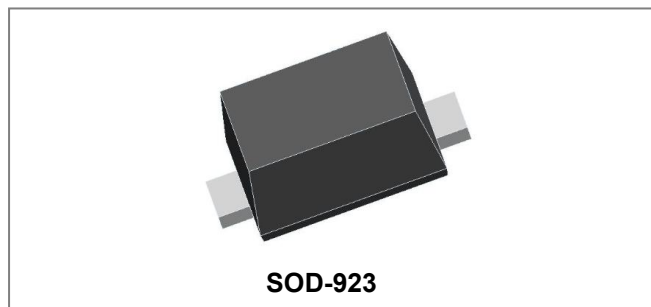


## ESDB5.0CM9 ESD Protection Diodes



### Mechanical Data

- Bi-Directional Transient Voltage Suppressor
- Low capacitance and Low Leakage
- ESD Protection, IEC61000-4-2 Level 4
- RoHS compliant
- UL-94 V-0 / Green EMC
- Matte Tin Lead finish (Pb-Free)
- Terminals finish: 100% Pure Tin

### Schematic & Pin Configuration



### Device Marking Code

Device name	Marking Code
ESDB5.0CM9	E/9C/C

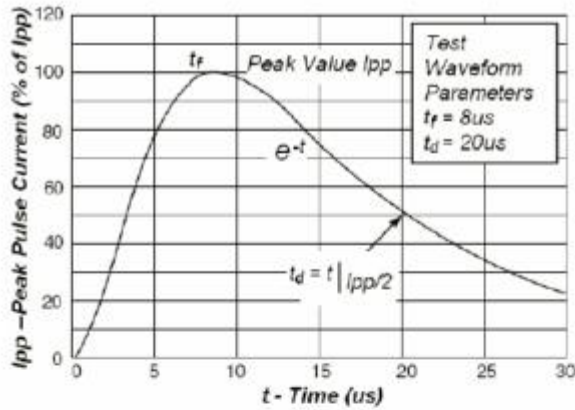
### Maximum Ratings @T<sub>A</sub>=25° C unless otherwise specified

Parameter	Symbol	Value	Units
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	±15	kV
ESD per IEC 61000-4-2 (Contact)		± 8	
Maximum Reverse Peak Pulse Current	I <sub>PP</sub>	5	A
Power Dissipation @ t <sub>p</sub> =8/20 μ s	P <sub>D</sub>	150	mW
Junction Temperature Range	T <sub>J</sub>	150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to + 150	°C

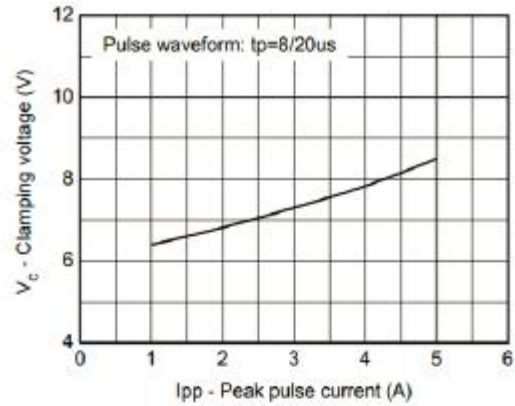
### Electrical Characteristics@T<sub>A</sub>=25° C unless otherwise specified

Characteristics	Symbol	Condition	Min.	Typ.	Max.	Units
Reverse Working Peak Voltage	V <sub>RWM</sub>	-			5	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>T</sub> = 1mA Pin 1 to 2 or Pin 2 to 1	5.6		8.2	V
Reverse Current	I <sub>R</sub>	V <sub>RWM</sub> = ± 5 V, T=25°C			1	uA
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> =1A, t <sub>p</sub> =8/20us, T=25°C			8	V
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> =5A, t <sub>p</sub> =8/20us, T=25°C			11	V
Diode Capacitance	C <sub>d</sub>	V <sub>R</sub> =0V, f=1MHz, T=25°C		13		pF

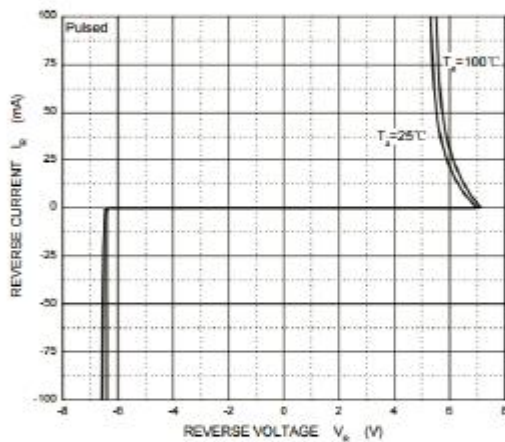
**Ratings and Characteristics Curves**



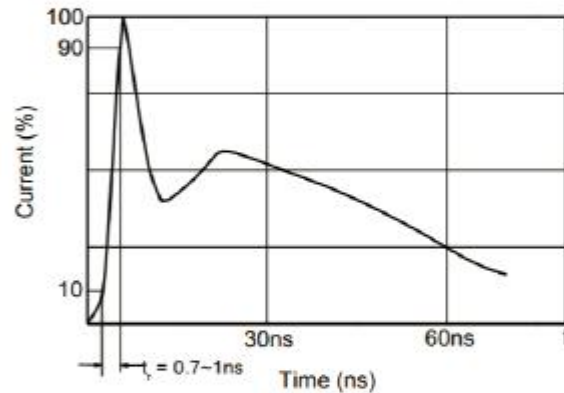
Pulse Waveform



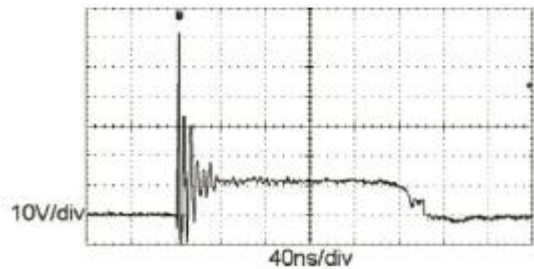
Clamping voltage vs. Peak pulse current



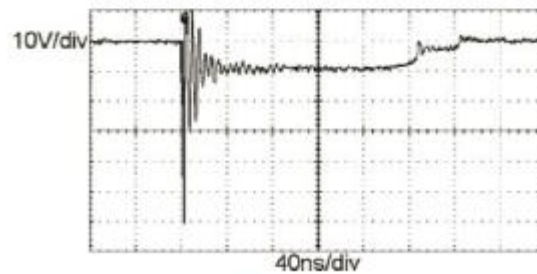
Reverse Characteristics



Contact discharge current waveform per IEC61000-4-2



ESD clamping  
(+8kV contact discharge per IEC61000-4-2)



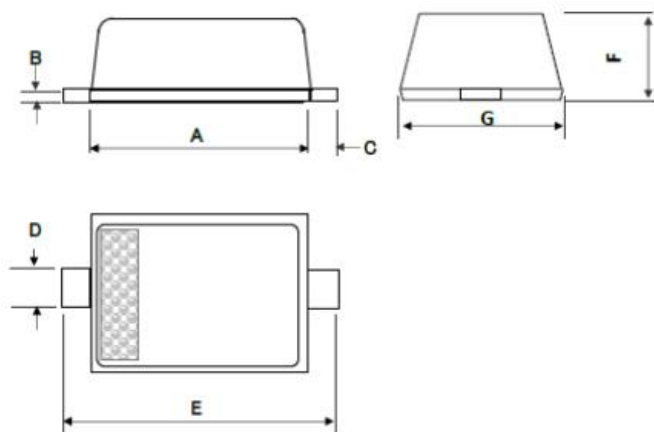
ESD clamping  
(-8kV contact discharge per IEC61000-4-2)

**Ordering Information**

Device	Package	Shipping
ESDB5.0CM9	SOD-923 (Pb-Free)	8000pcs / reel

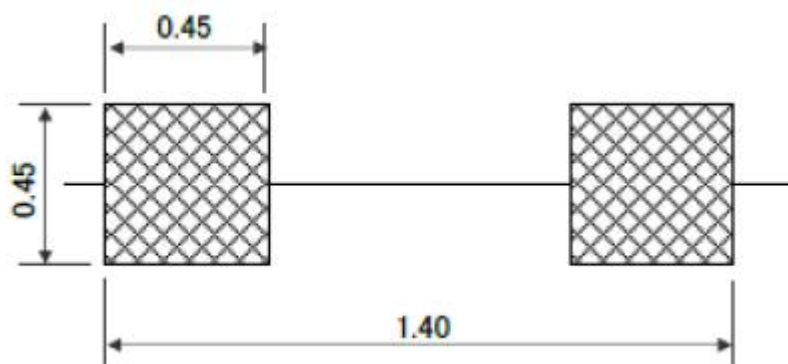
For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Mechanical Dimensions SOD-923**



SYMBOL	Millimeters	
	Min.	Max.
A	0.70	0.90
B	0.05	0.20
C	0.05	0.15
D	0.15	0.30
E	0.90	1.10
F	0.39	0.45
G	0.55	0.65

**and Pattern Recommendation SOD-923 (Millimeters)**



Tolerance:  $\pm 0.05\text{mm}$

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