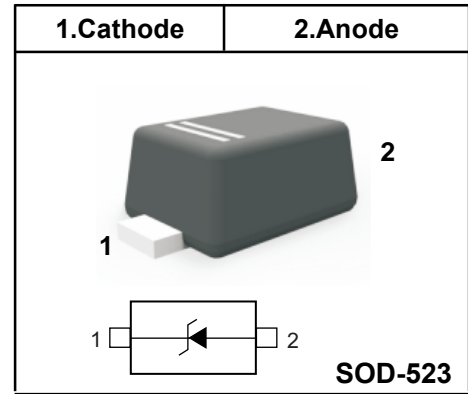


■ **Surface Mount Transient Voltage Suppressor**

Features

- Peak Power up to 200 Watts @ 8 x 20 μs Pulse
- Low Leakage
- Response Time is Typically < 1 ns
- ESD Rating of Class 3 (> 16 kV) per Human Body Model

Pinning



Marking Code

ESD5Z2.5	ZD
ESD5Z3.3	ZE
ESD5Z5.0	ZF
ESD5Z6.0	ZG
ESD5Z7.0	ZH

Absolute Maximum Ratings T_a = 25°C

Parameter	Symbol	Rating	Unit
ESD Voltage			
Per Human Body Model		16	KV
Per Machine Model		400	V
Electrostatic discharge			
IEC61000-4-2 Air discharge		30	KV
IEC61000-4-2 ContactAir discharge		30	
Electrostatic discharge			
IEC61000-4-4		40	A
Total Power Dissipation on FR-5 Board*1, @ T _A = 25°C	P _D	100	mW
Junction Temperature Range	T _L	260(10s)	°C
Lead Solder Temperature -Maximum	T _J	150	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

*1 FR-5 = 1.0 X 0.75 X 0.62 in.

Electrical Characteristics (T_a = 25°C unless otherwise noted, V_F = 0.9 V Max. @ I_F = 10 mA for all types)

Device	V _{RWM} (V)	I _R (μA) @ V _{RWM}	V _{BR} (V)@ I _T *2	I _T	V _C (V)*1 @I _{PP} =5.0A	V _C (V)*1 @Max I _{PP}	I _{PP} (A) *1	P _{PK} (W)*1	C(pF)
	Max	Max	Min	mA	Typ	Max	Max	Max	Typ
ESD5Z2.5	2.5	6.0	4.0	1.0	6.5	10.9	11.0	120	145
ESD5Z3.3	3.3	0.05	5.0	1.0	8.4	14.1	11.2	158	105
ESD5Z5.0	5.0	0.05	6.2	1.0	11.6	18.6	9.4	174	80
ESD5Z6.0	6.0	0.01	6.8	1.0	12.4	20.5	8.8	181	70
ESD5Z7.0	7.0	0.01	7.5	1.0	13.5	22.7	8.8	200	65

* 1. Surge current waveform per Fig.1

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

Typical characteristics

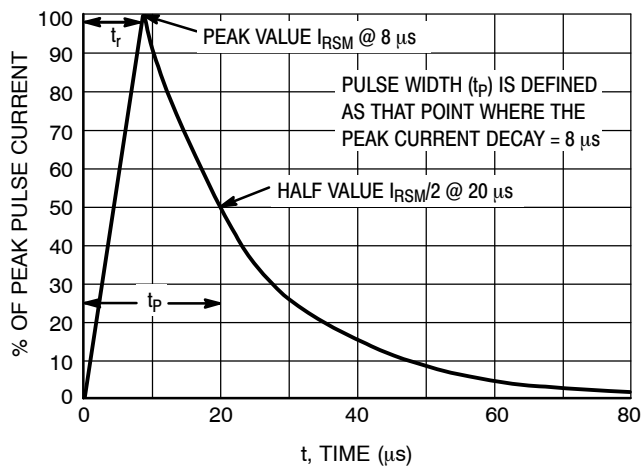
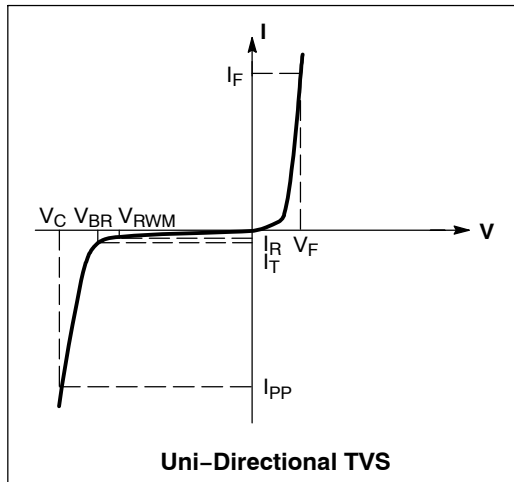


Figure 1. 8 x 20 μs Pulse Waveform

Ordering information

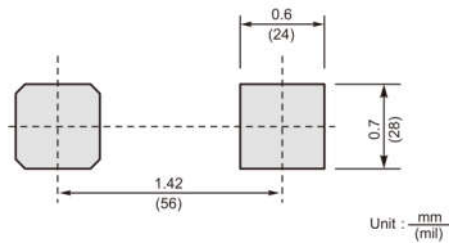
Package	Packing Description	Packing Quantity
SOD-523	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOD-523

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.51	0.77	20	30
e	0.25	0.35	10	14
C	0.08	0.15	3	6
D	1.10	1.30	43	51
E	0.75	0.99	30	39
HE	1.50	1.70	59	67
N	0.35ref		14ref	
L	0.2ref		8ref	
P	R0.1 ALL ROUND		R4.0 ALL ROUND	
∠	10°			

The recommended mounting pad size



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