

Transient Voltage Suppressors

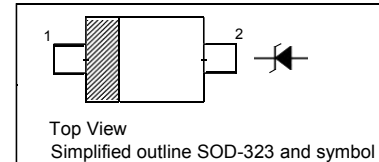
for ESD Protection

Features

- Low clamping voltage
- Low leakage

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



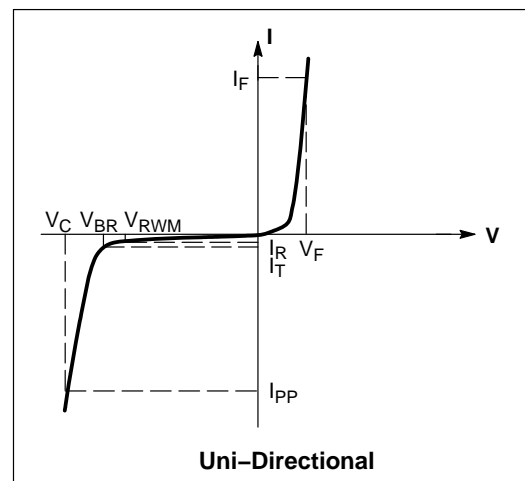
Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
IEC61000-4-2 (ESD) Air Contact	-	± 30 ± 30	KV
IEC61000-4-4 (EFT)	-	24	A
ESD Voltage Per Human Body Model Per Machine Model	-	16	KV
	-	400	V
Power Dissipation on FR-5 Board	P_{tot}	250	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

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

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	Max. Capacitance @ $V_R = 0$ and $f = 1\text{ MHz}$



*See Application Note AND8308/D for detailed explanations of datasheet parameters.



Characteristics at $T_a = 25\text{ }^\circ\text{C}$ ($V_F = 0.9\text{ V Max.}$ at $I_F = 10\text{ mA}$)

Type	Marking Code	Reverse Stand-off Voltage	Reverse Current	Breakdown Voltage		Clamping Voltage ¹⁾				Capacitance	
		V_{RWM}	I_R at V_{RWM}	V_{BR}	at I_R	V_C	at I_{PP}	V_C	at I_{PP}	C_j	at f
		Max. (V)	Max. (μA)	Min.(V)	mA	Typ.(V)	A	Max.(V)	A	Max.(pF)	MHz
ESD3Z2V5	02	2.5	5	4	1	6.5	5	10.9	11	145	1
ESD3Z3V3	03	3.3	10	5	1	8.4	5	14.1	16	105	1
ESD3Z5V0	05	5	10	6	1	9.8	5	14.5	24	350	1
ESD3Z6V0	06	6	5	6.8	1	12.4	5	20.5	8.8	70	1
ESD3Z7V0	07	7	1	7.5	1	13.5	5	22.7	8.8	65	1
ESD3Z12	12	12	1	13.3	1	19	5	25	7	150	1
ESD3Z18	18	18	1	19.8	1	26.5	5	40	5	100	1
ESD3Z24	24	24	1	25.5	1	29	4	52	5	150	1
ESD3Z36	36	36	1	40	1	/	3	80	3	100	1

¹⁾ $t_p = 8/20\text{ }\mu\text{s}$

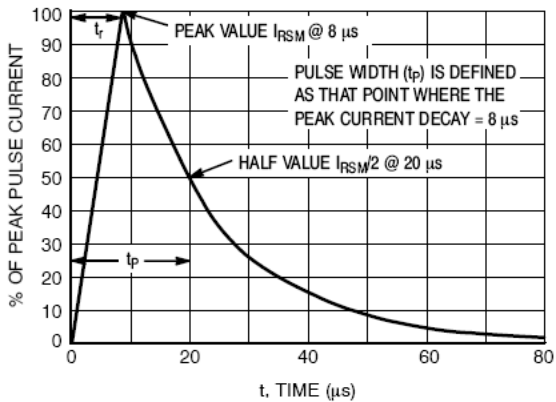


Figure 1. 8 x 20 μs Pulse Waveform

