

Transient Voltage Suppressors

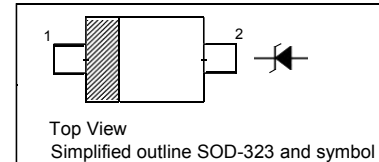
for ESD Protection

Features

- Low clamping voltage
- Low leakage

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

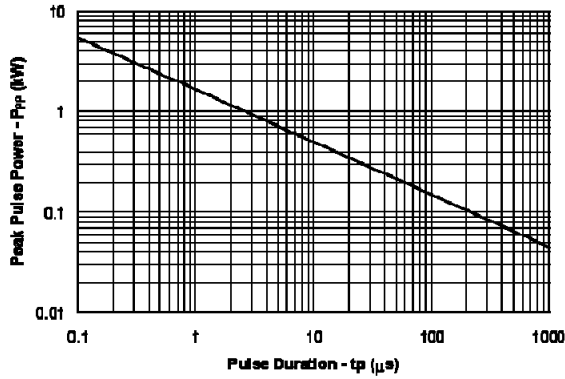
Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20\text{ }\mu\text{s}$)	P_{pk}	350	W
Peak Pulse Current ($t_p = 8/20\text{ }\mu\text{s}$)	I_{pp}	24	A
ESD Voltage (HRB Waveform per IEC61000-4-2)	V_{pp}	30	KV
Operating Junction Temperature	T_j	- 55 to + 125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

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

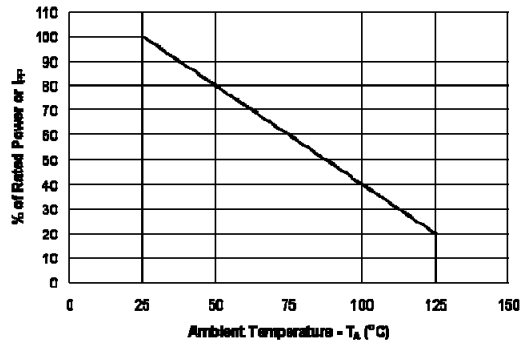
Type	Marking Code	Reverse Stand-off Voltage	Reverse Current	Breakdown Voltage		Clamping Voltage ¹⁾				Capacitance	
		V_{RWM}	I_R at V_{RWM}	V_{BR}	at I_T	V_C	at I_{PP}	V_C	at I_{PP}	C_j	at f
		Max. (V)	Max. (μA)	Min. (V)	mA	Max. (V)	A	Max. (V)	A	Max. (pF)	MHz
ESD3Z2V5	2-	2.5	5	4	1	6.5	5	10.9	11	145	1
ESD3Z3V3	3-	3.3	10	5	1	8.4	5	14.1	16	105	1
ESD3Z5V0	5-	5	10	6	1	9.8	5	14.5	24	350	1
ESD3Z6V0	6-	6	5	6.8	1	12.4	5	20.5	8.8	70	1
ESD3Z7V0	7-	7	1	7.5	1	13.5	5	22.7	8.8	65	1
ESD3Z12	12-	12	1	13.3	1	19	5	25	15	150	1

¹⁾ $t_p = 8/20\text{ }\mu\text{s}$

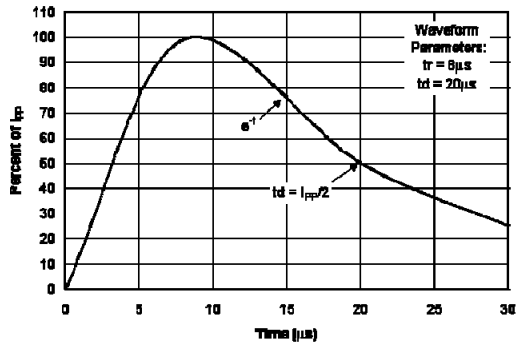
Non-Repetitive Peak Pulse Power vs. Pulse Time



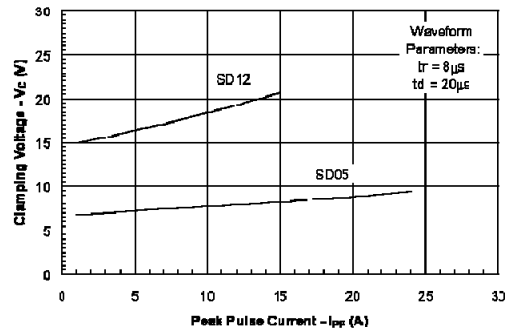
Power Derating Curve



Pulse Waveform



Clamping Voltage vs. Peak Pulse Current





CHINA BASE
INTERNATIONAL

SOD-323



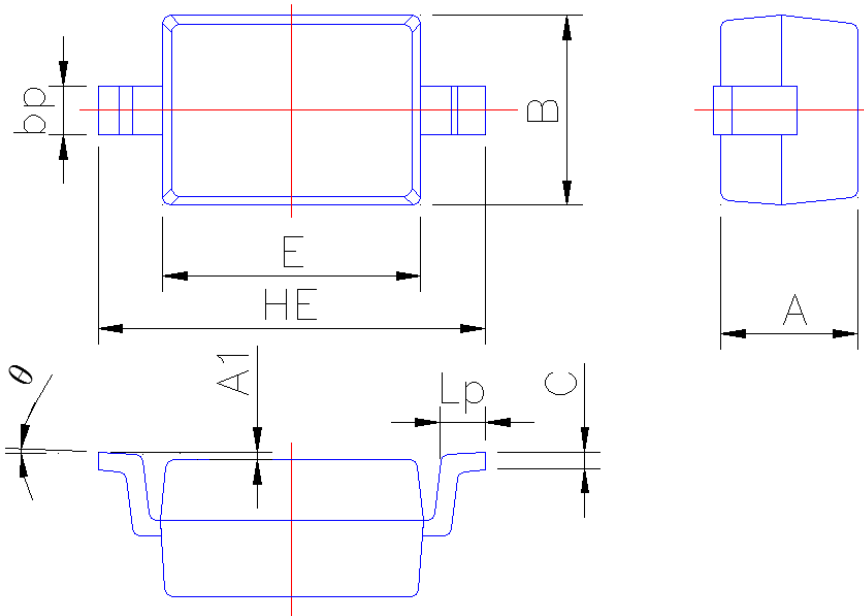
ESD3Z

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PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



Symbol	Dimension in Millimeters	
	Min	Max
A	0.95	1.15
A1	0.010	0.100
B	1.20	1.40
bp	0.25	0.40
C	0.09	0.150
E	1.60	1.80
HE	2.30	2.70
Lp	0.20	0.40
θ	0°	5°