Transient Voltage Suppressors

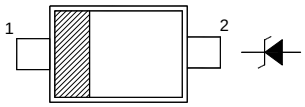
for ESD Protection

Features

- Excellent clamping capability
- Low leakage
- Fast response time

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Simplified outline SOD-523 and symbol

Absolute Maximum Ratings (T_a = 25℃)

Parameter		Symbol	Value	Unit
IEC61000-4-2 (ESD)	Air Contact	V_{ESD}	± 30 ± 30	KV
ESD Voltage	Per Human Body Model Per Machine Model	V_{ESD}	16 400	KV V
Power Dissipation on FR-5 Board		P_{tot}	200	mW
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	- 55 to + 150	℃

Characteristics at T_a = 25℃ (V_F = 1.1 V Max. at I_F = 10 mA)

Type	Marking Code	Reverse Stand-off Voltage	Reverse Current	Breakdown Voltage		Clamping Voltage			Reverse Peak Pulse Current	Peak Power Dissipation	Capacitance
		V_{RWM}	I_R at V_{RWM}	V_{BR}	at I_T	V_C	at I_{PP}	V_C at Max. I_{PP}	I_{PP}	P_{pk}	C_j
		Max. (V)	Max. (μA)	Min. (V)	(mA)	Typ. (V)	(A)	Max. (V)	Max. (A)	Max. (W)	Typ. (pF)
ESD5Z2V5	02	2.5	6	4	1	6.5	5	10.9	11	120	145
ESD5Z3V3	03	3.3 0.05		5	1	8.4	5	14.1	11.2	158	105
ESD5Z5V0	05	5	0.05	6.2	1	11.6	5	18.6	9.4	174	80
ESD5Z6V0	06	6	0.01	6.8	1	12.4	5	20.5	8.8	181	70
ESD5Z7V0	07	7	0.01	7.5	1	13.5	5	22.7	8.8	200	65
ESD5Z9V0	09	9	0.5	9	1	11.5	5	15	13.3	200	92
ESD5Z12	12	12	0.01	14.1	1	17	5	25	9.6	240	55

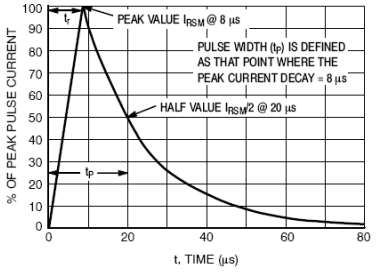
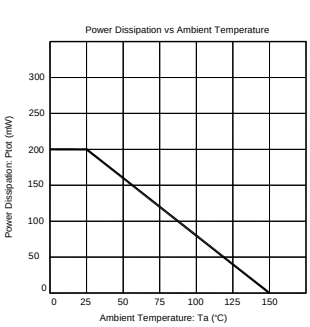
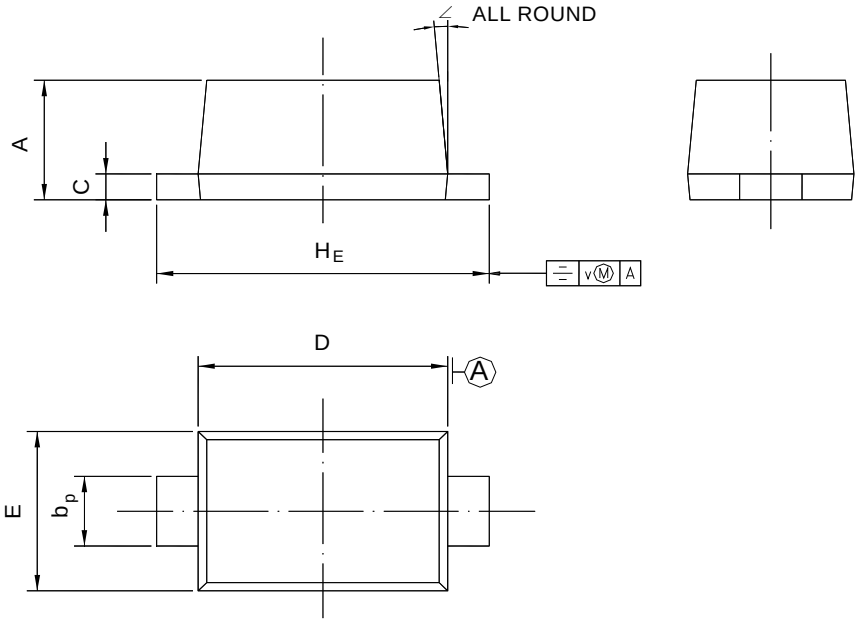


Figure 1. 8 x 20 μs Pulse Waveform



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-523**



UNIT	A	b_p	C	D	E	H_E	V	∠
mm	0.70 0.60	0.4 0.3	0.135 0.100	1.25 1.15	0.85 0.75	1.7 1.5	0.1	5°