

ESD7Z Series

Transient Voltage Suppressors

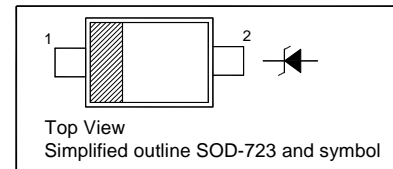
for ESD Protection

Features

- Excellent clamping capability
- Low leakage
- Fast response time

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

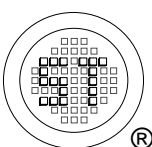


Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
IEC61000-4-2 (ESD) Air Contact	-	± 30 ± 30	KV
ESD Voltage Per Human Body Model Per Machine Model	-	16 400	KV V
Power Dissipation on FR-5 Board	P_{tot}	100	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
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	Reverse Peak Pulse Current	Peak Power Dissipation	Capacitance	
		V_{RWM}	I_R at V_{RWM}	V_{BR}		at I_T	V_C at Max. I_{PP}	I_{PP}	P_{pk}	C_j	at f
		Max. (V)	Max. (μA)	Min. (V)	Max. (V)	(mA)	Max. (V)	Max. (A)	Max. (W)	Typ. (pF)	(MHz)
ESD7Z3V3	3-	3.3	2.5	5	5.9	1	11.9	10.4	113	80	1
ESD7Z5V0	5-	5	1	6.2	7.3	1	13.3	8.8	117	65	1
ESD7Z7V0	7-	7	1	7.5	8.7	1	14.1	8.1	114	55	1
ESD7Z12	1-	12	1	13.5	15.6	1	23.7	5.4	128	30	1



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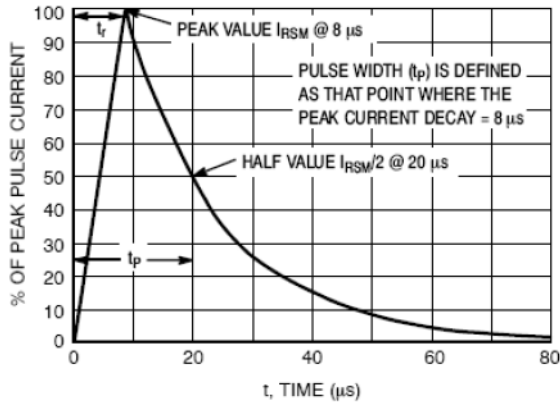


Figure 1. 8 x 20 μs Pulse Waveform

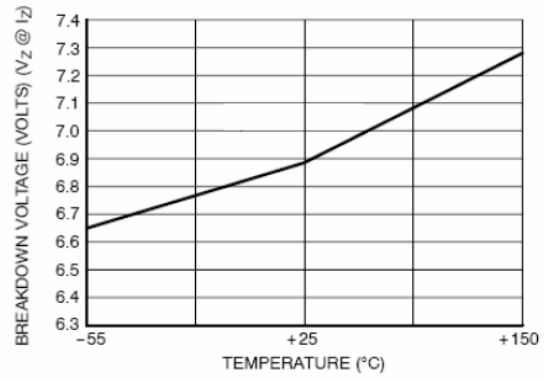


Figure 2. Typical Breakdown Voltage versus Temperature

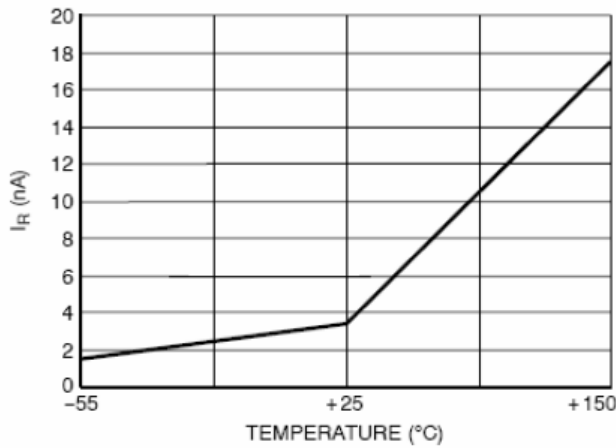
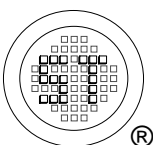


Figure 3. Typical Leakage Current versus Temperature



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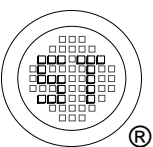
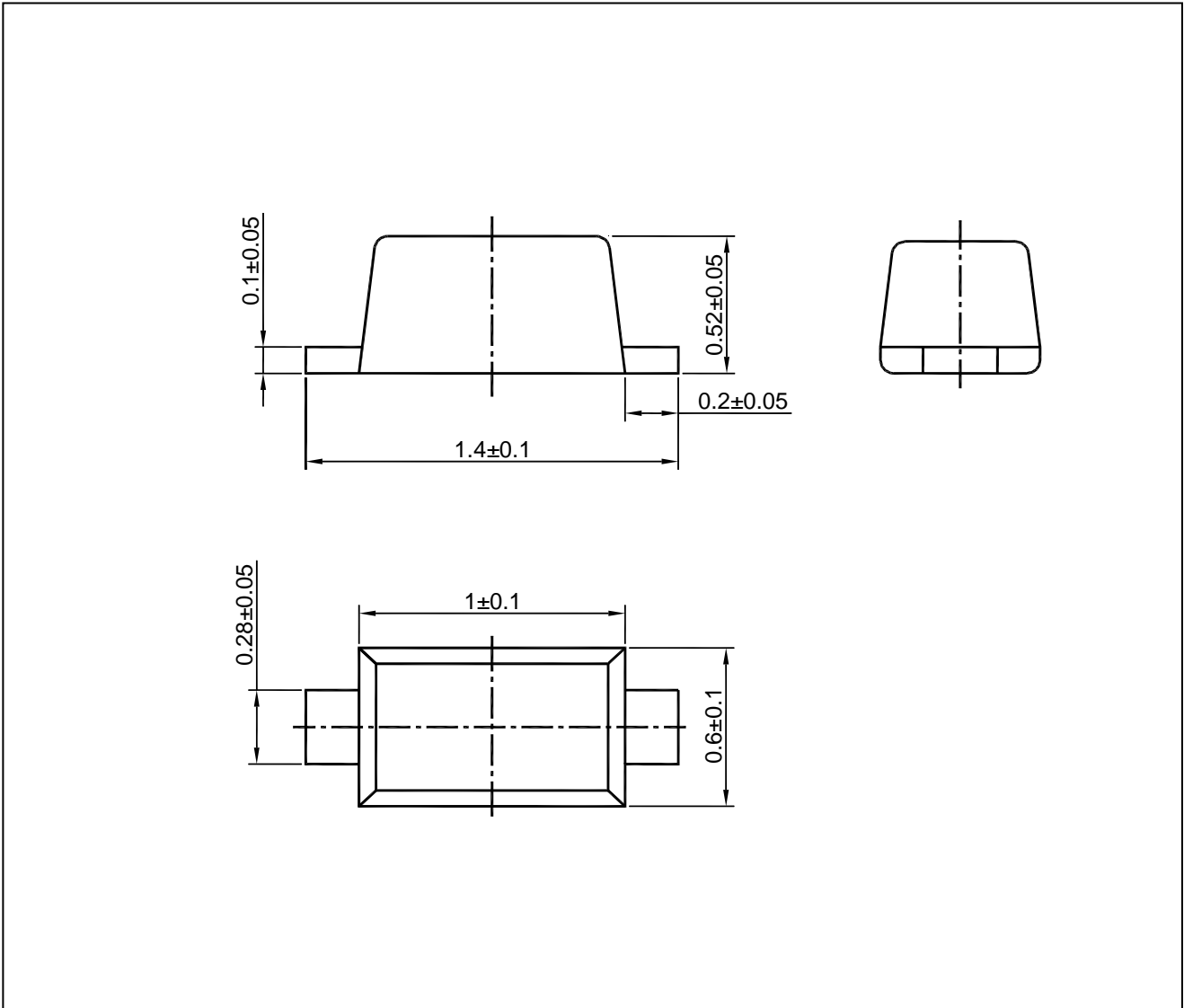
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PACKAGE OUTLINE

Plastic surface mounted package

SOD-723

Package Outline Dimensions (Units: mm)



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Dated : 07/04/2011 Rev:02