

ESD1Z Series

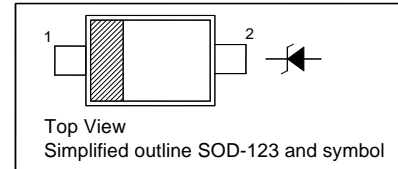
ESD Protection Diodes

Features

- Low clamping voltage
- Low leakage

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

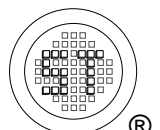


Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20 \mu\text{s}$)	P_{PK}	200	W
ESD (IEC61000-4-2) Air Contact	V_{ESD}	± 30	KV
Operating Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

Type	Reverse Stand-off Voltage	Reverse Current	Breakdown Voltage			Clamping Voltage	
	V_{RWM}	I_R at V_{RWM}	V_{BR}		V_C	at I_{PP}	
	Max. (V)	Max. (μA)	Min.(V)	Max.(V)	mA	Max.(V)	A
ESD1Z5V0	5	400	6.4	7	10	9.2	21.7
ESD1Z12	12	2.5	13.3	14.7	1	19.9	10.1



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Electrical Characteristics Curves

Fig 1. Pulse Waveform

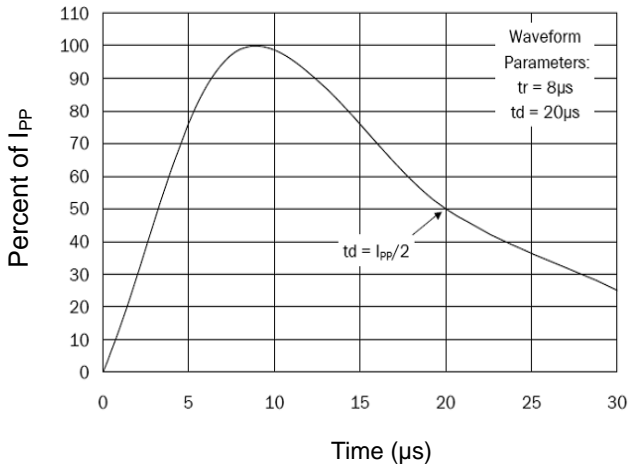


Fig 2. Power Derating Curve

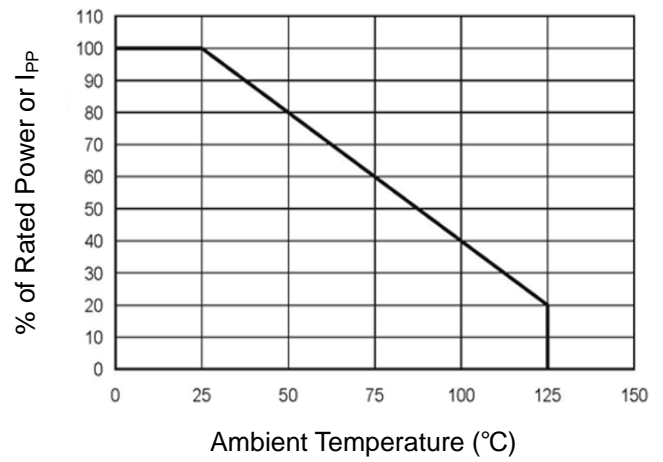


Fig 3. Clamping Voltage Curve

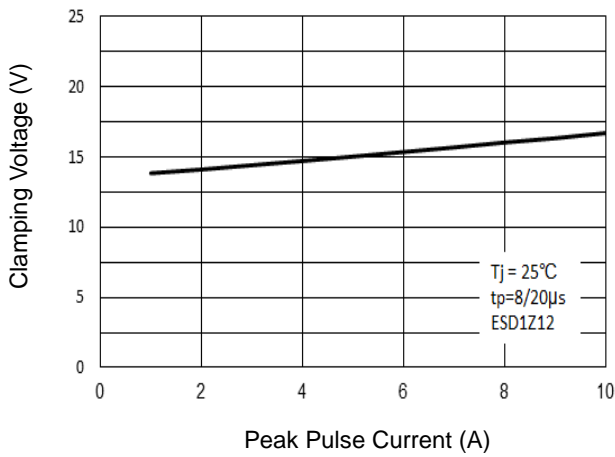


Fig 4. Junction Capacitance

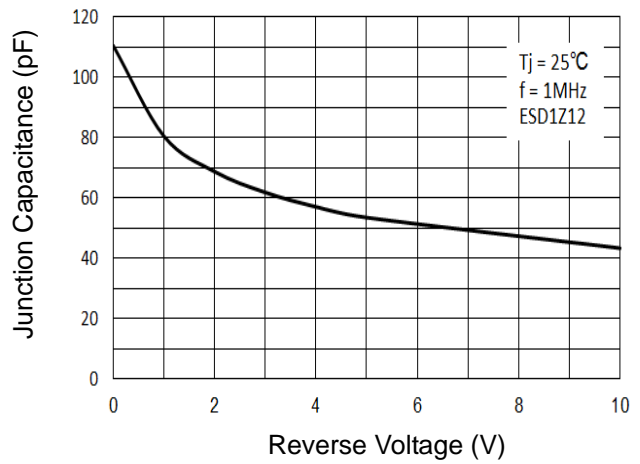
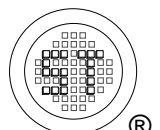
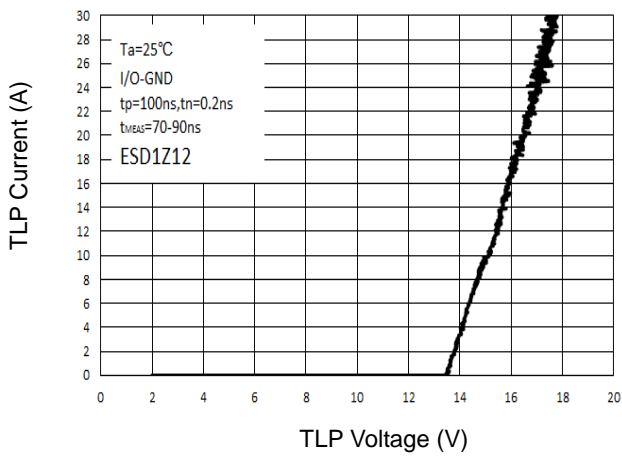


Fig. 5 TLP Curve

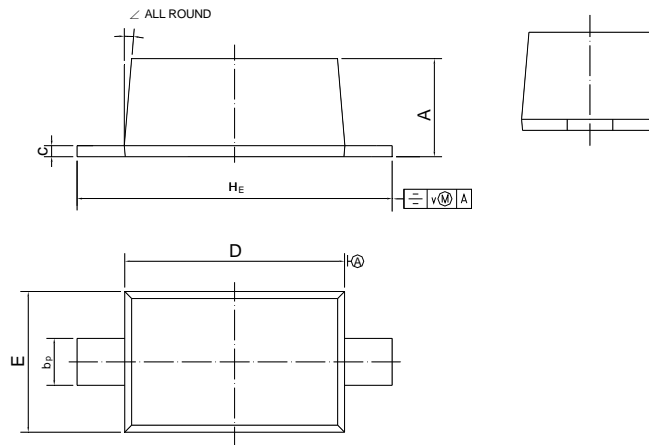


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PACKAGE OUTLINE

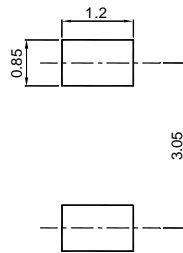
Plastic surface mounted package; 2 leads

SOD-123



UNIT	A	b _p	c	D	E	H _E	v	∠
mm	1.15 1.05	0.6 0.5	0.135 0.100	2.7 2.6	1.65 1.55	3.85 3.55	0.2	5°

Recommended Soldering Footprint



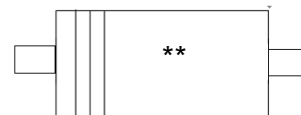
Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	(inch)	mm	(inch)	
SOD-123	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

" ** " = Part No.

Type	Marking	Type	Marking
ESD1Z5V0	1U	ESD1Z12	2U



" III " = Cathode line

Font type: Arial

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