

ESD3Z Series

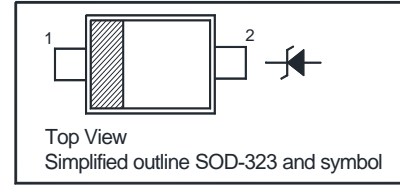
ESD Protection Diodes

Features

- Low clamping voltage
- Low leakage

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



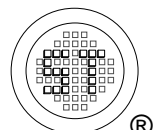
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

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

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

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
ESD3Z5V0	5-	5	10	6	1	9.8	5	14.5	24	350	1
ESD3Z12	12-	12	1	13.3	1	19	5	25	15	150	1

¹⁾ $t_p = 8/20 \mu\text{s}$



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Electrical characteristic curves

Fig 1. Pulse Waveform

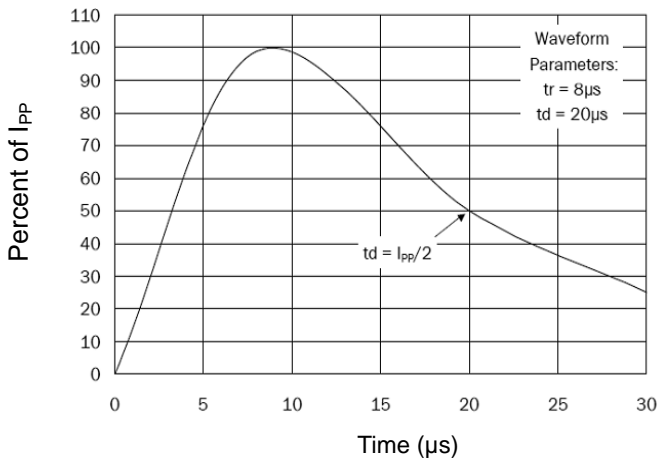


Fig 2. Power Derating Curve

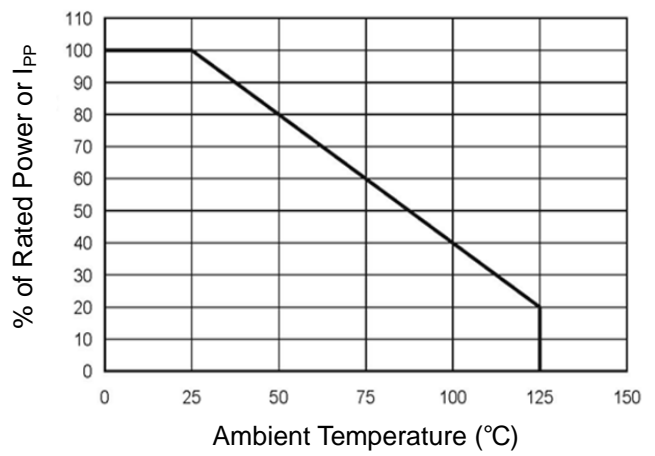


Fig 3. Clamping Voltage Curve

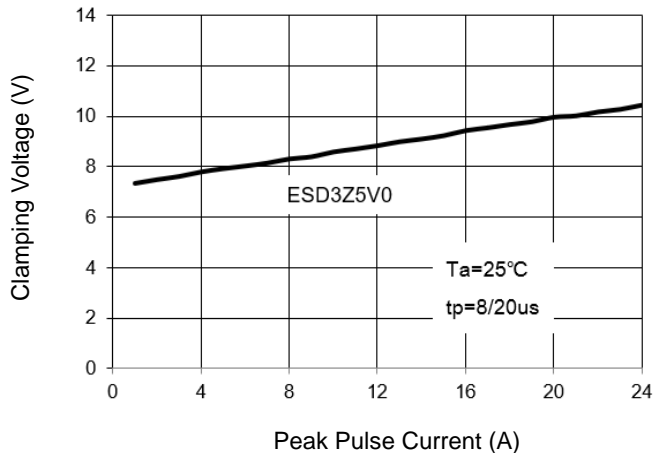


Fig 4. Clamping Voltage Curve

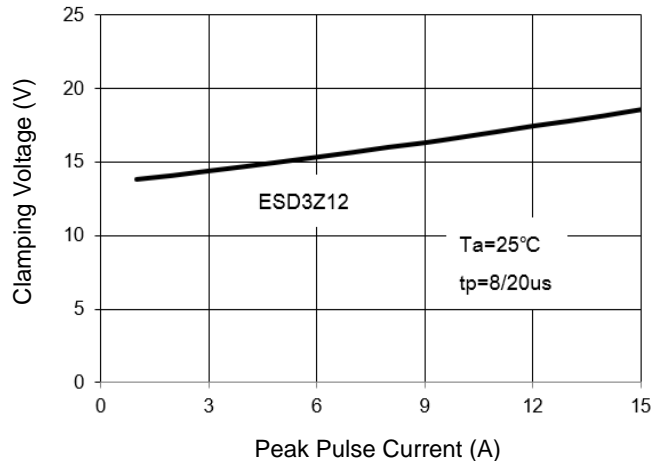


Fig 5. Junction Capacitance

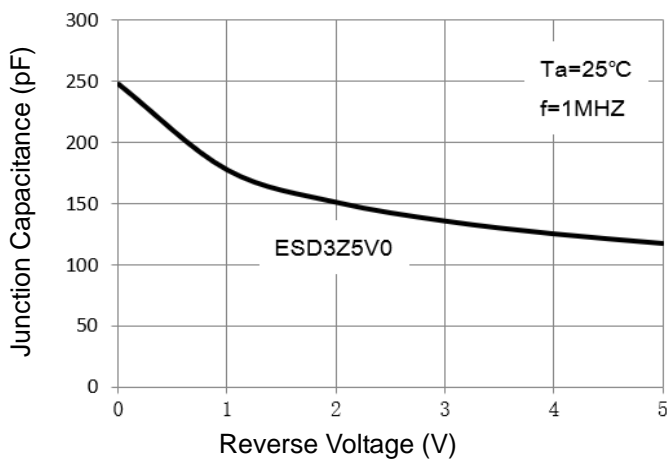
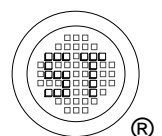
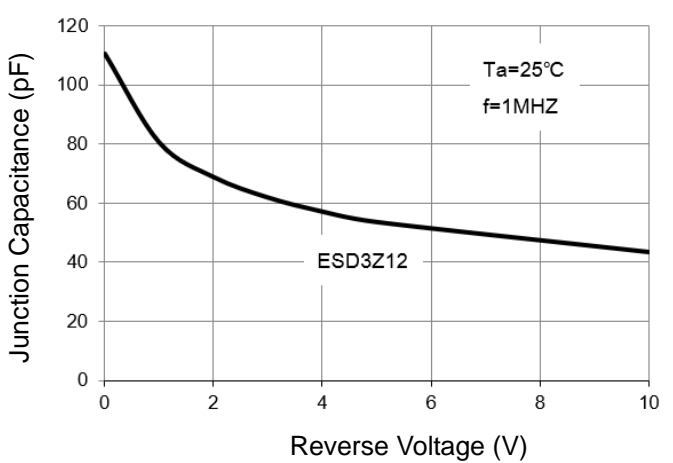


Fig 6. Junction Capacitance



ESD3Z Series

Electrical characteristic curves

Fig 7. TLP curve

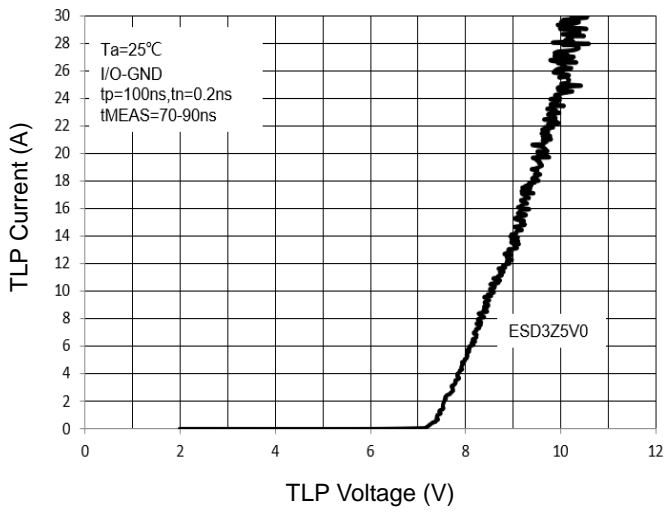
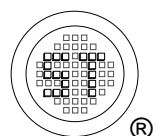
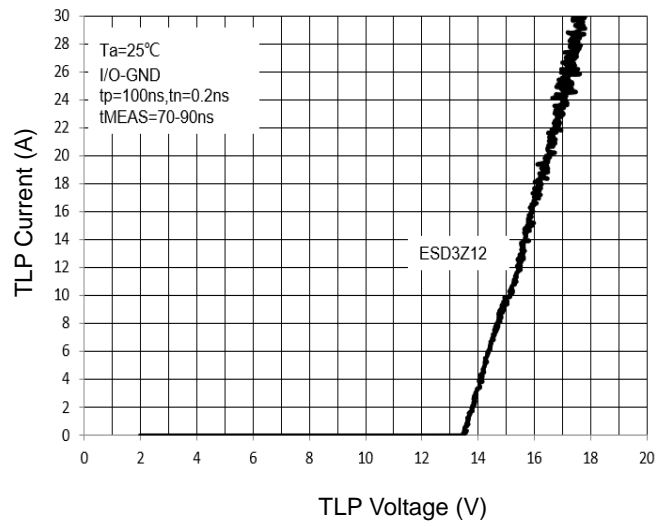


Fig 8. TLP curve

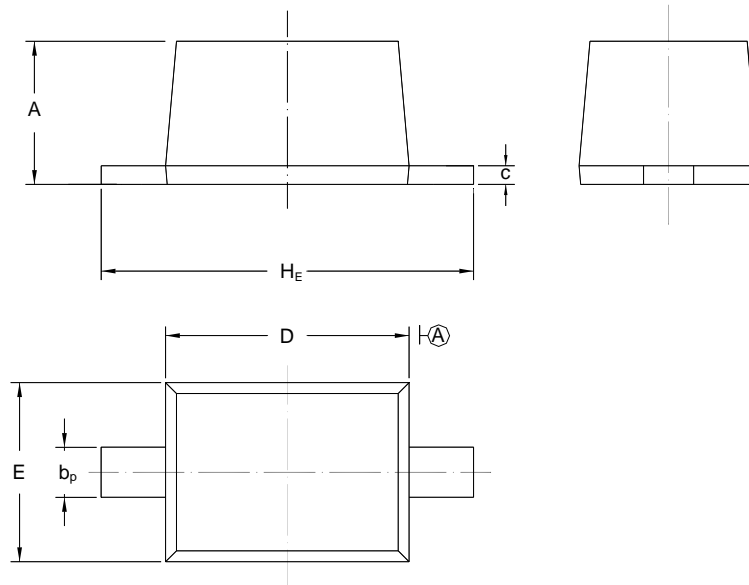


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PACKAGE OUTLINE

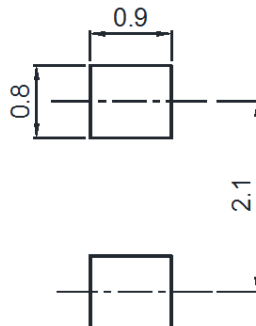
Plastic surface mounted package; 2 leads

SOD-323



UNIT	A	b _p	C	D	E	H _E
mm	1.10 0.80	0.40 0.25	0.15 0.10	1.80 1.60	1.35 1.15	2.80 2.30

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-323	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

Marking information

" III " = Cathode line

" ** " = Part No.

Font type: Arial

