

ESD3T3V0WS~ESD3T36WS

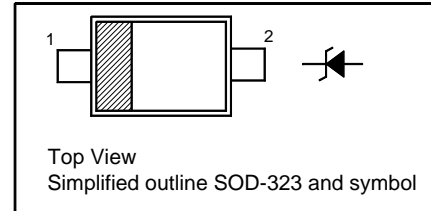
ESD Protection Diodes

Features

- Low clamping voltage
- Low leakage

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

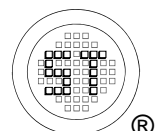
Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20 \mu\text{s}$)	P_{PK}	350	W
Peak Pulse Current ($t_p = 8/20 \mu\text{s}$)	I_{PP}	See Next Table	A
IEC61000-4-2 (ESD) Air Contact	V_{ESD}	± 25 ± 25	KV
Operating Junction Temperature Range	T_j	- 50 to + 150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 50 to + 150	$^\circ\text{C}$

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

Type	Reverse Stand-off Voltage	Reverse Current	Breakdown Voltage			Clamping Voltage ¹⁾		Peak Pulse Current	Capacitance ²⁾
	V_{RWM}	I_R at V_{RWM}	V_{BR}		at I_{BR}	V_C	at I_{PP}	I_{PPM}	C_j
	Max. (V)	Max. (μA)	Min. (V)	Max. (V)	mA	Max. (V)	A	A	Typ. (pF)
ESD3T3V0WS	3	125	4	5	1	6.5	1	30	450
ESD3T5V0WS	5	10	6	7.2	1	9.8	1	24	300
ESD3T8V0WS	8	10	8.5	10	1	13.4	1	18	150
ESD3T12WS	12	1	13.3	15	1	19	1	15	130
ESD3T15WS	15	1	16.7	20	1	24	1	12	120
ESD3T24WS	24	1	26.6	30	1	43	1	8	80
ESD3T36WS	36	1	39.9	45	1	60	1	4	30

¹⁾ $t_p = 8/20 \mu\text{s}$

²⁾ at $V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$



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Electrical Characteristic Curves

Fig 1. Pulse Waveform

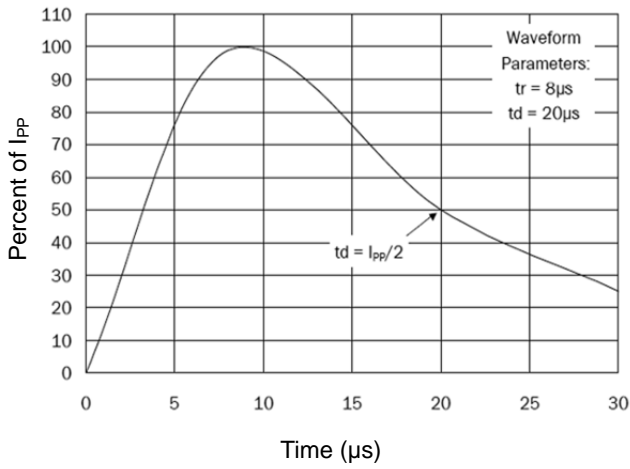


Fig 2. Power Derating Curve

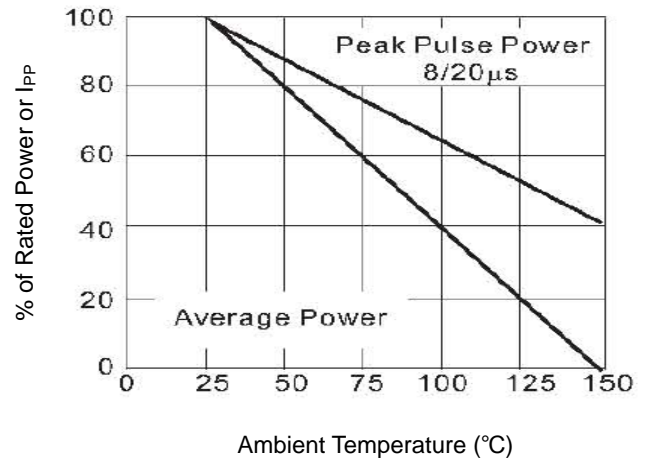


Fig 3. Clamping Voltage Curve

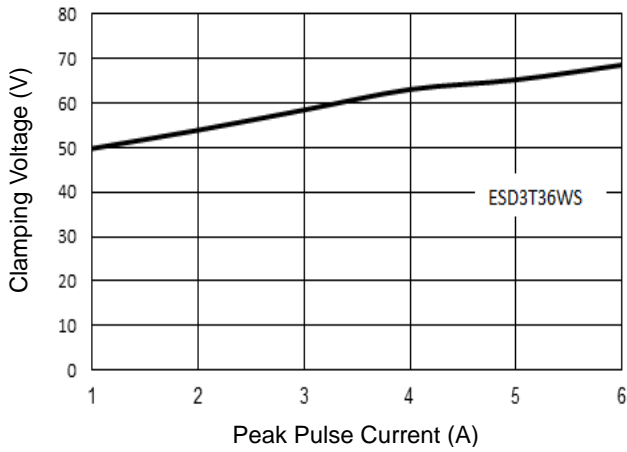


Fig 4. Junction Capacitance

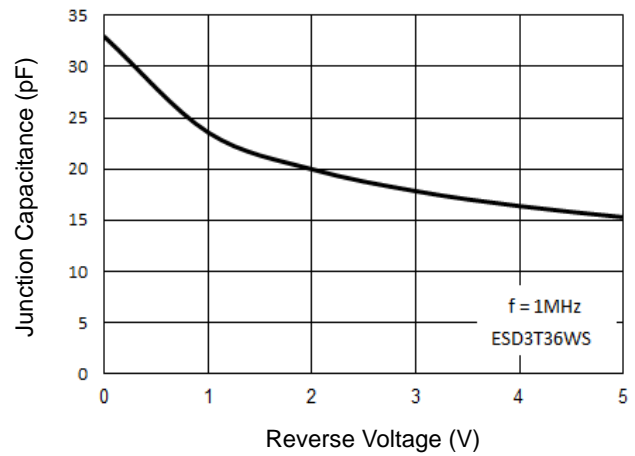
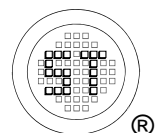
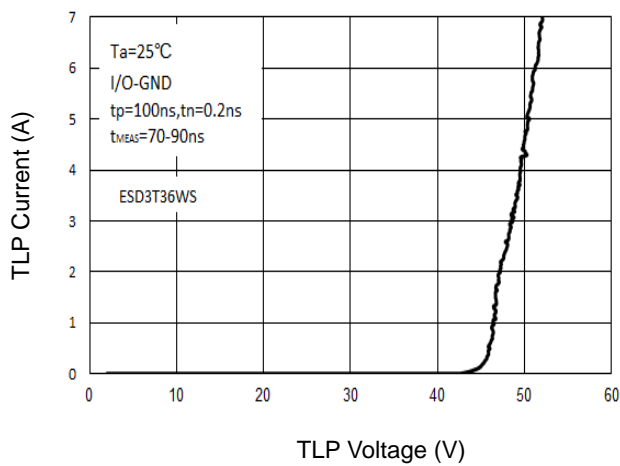


Fig 5. TLP Curve

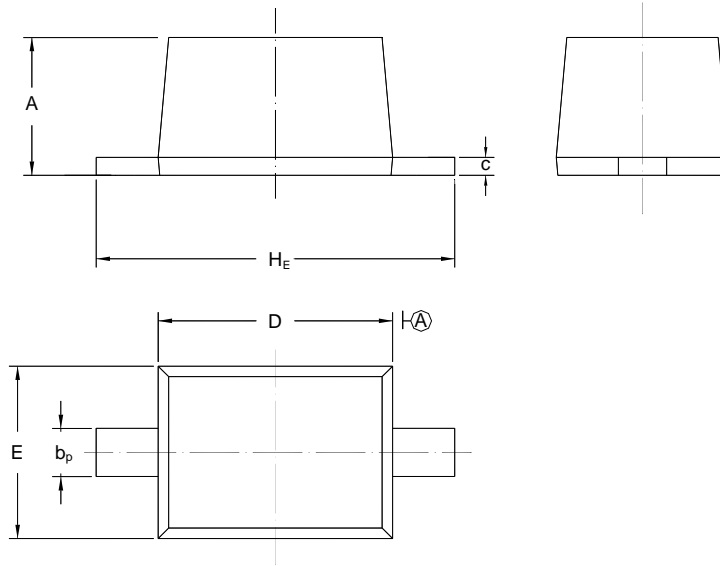


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PACKAGE OUTLINE

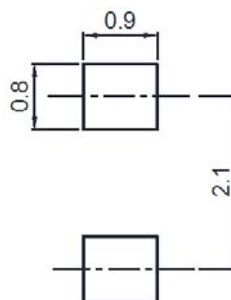
Plastic surface mounted package; 2 leads

SOD-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

" *T " = Part No.

Type	Marking	Type	Marking	Type	Marking	Type	Marking
ESD3T3V0WS	3T	ESD3T5V0WS	4T	ESD3T8V0WS	5T	ESD3T12WS	6T
ESD3T15WS	7T	ESD3T24WS	8T	ESD3T36WS	9T		

" III " = Cathode line

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