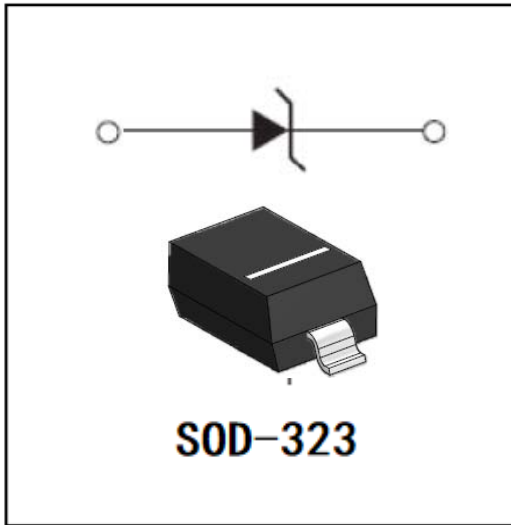


ESD Protection Diode



Features

- For sensitive ESD protection
- Low leakage
- Uni-directional ESD protection of one line
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Mechanical Data

- **Package:** SOD323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** ZE

Maximum Ratings

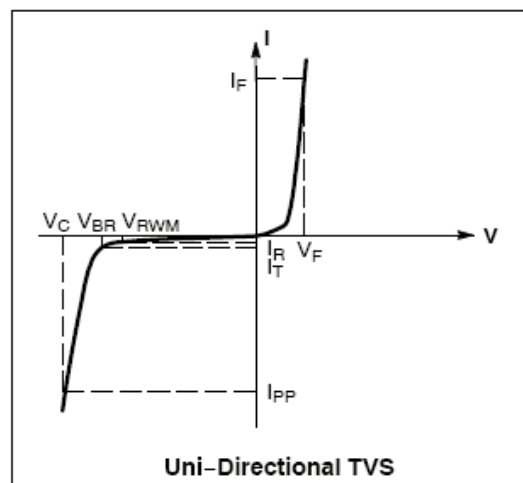
PARAMETER	SYMBOL	LIMITS	UNIT
Operating Junction & Storage Temperature	T_J & T_{STG}	-45 to +125	°C
IEC61000-4-2(ESD)Air	VESD ⁽¹⁾	± 15	KV
IEC61000-4-2(ESD)Contact		± 8	KV
Peak Pulse Current	I_{PP} ⁽²⁾	22	A

(1). Device stressed with ten non-repetitive ESD pulses.

(2). Non-repetitive current pulse 8/20μs exponential decay waveform according to IEC61000-4-5.

Electrical Parameter

PARAMETER	SYMBOL
Clamping Voltage@ I_{PP}	V_C
Breakdown Voltage@ I_T	V_{BR}
Peak Pulse Current	I_{PP}
Test Current	I_T
Reverse Leakage Current@ V_{RWM}	I_R
Reverse Standoff Voltage	V_{RWM}
Forward Voltage@ I_F	V_F
Forward Current	I_F
Peak Power Dissipation	P_{PK}
Max. Capacitance @ $V_R=0$ and $f=1$ MHz	C





ESD3V3D3

■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	Symbol	UNIT	Conditions	Min	Typ	Max
Reverse Standoff Voltage	V _{RWM} ⁽¹⁾	V				3.3
Reverse Leakage Current	I _R	uA	V _{RWM} =3.3V			0.5
Breakdown Voltage	V _(BR)	V	I _T =1mA	4.5		6.5
Clamping Voltage	V _C ⁽²⁾	V	I _{PP} =22A			17
Forward voltage	V _F	V	I _F =10mA			1.1
Junction Capacitance	C _J	pF	V _R =0V, f=1MHz			400

(1). Other voltages available upon request.

(2). Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
ESD3V3D3	F2	Approximate 0.004	3000	30000	120000	7" reel

■ Characteristics (Typical)

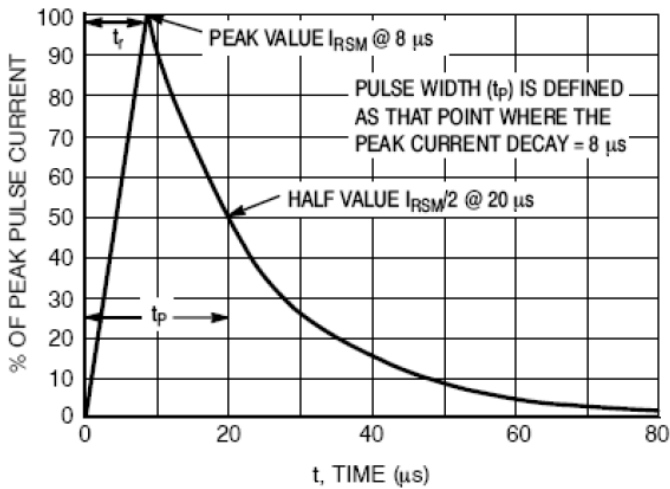


Figure 1. 8 x 20 μs Pulse Waveform

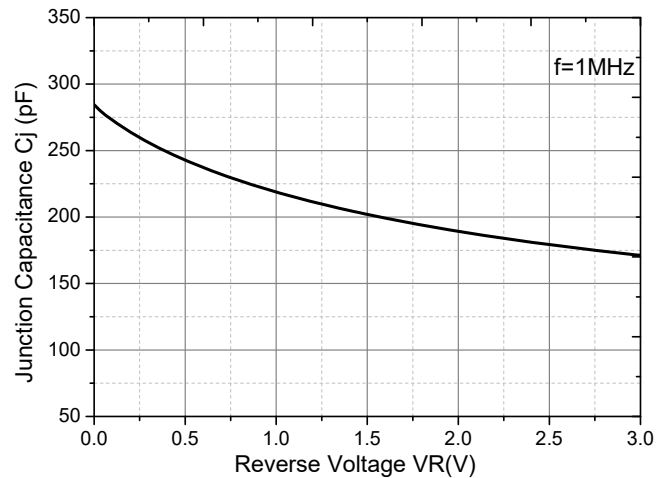
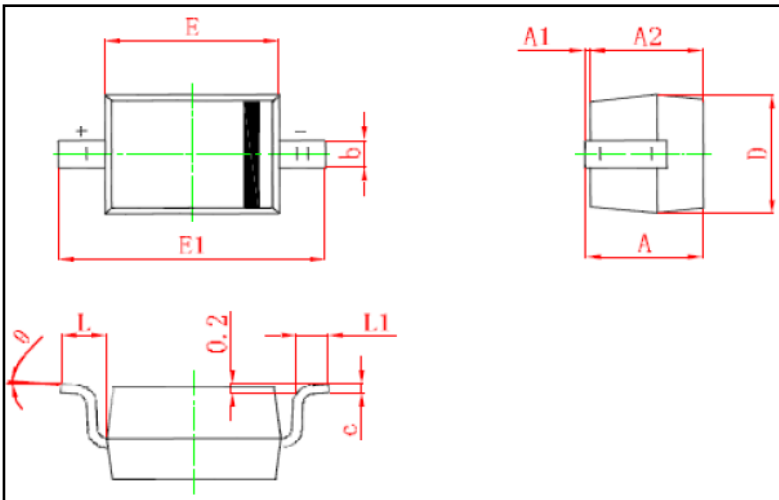


Figure 2. Capacitance Characteristics



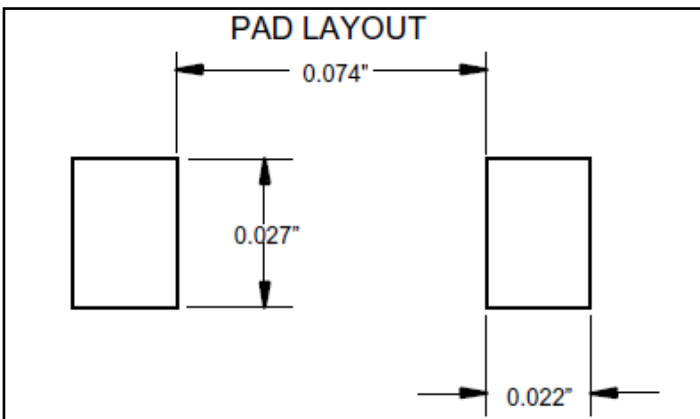
ESD3V3D3

■ Outline Dimensions



Symbol	Min. (mm)	Max. (mm)
A		1.000
A1	0.000	0.100
A2	0.800	0.900
b	0.250	0.400
c	0.080	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
L	0.475REF	
L1	0.250	0.400
θ	0°	8°

■ Soldering Footprint



Unit: inches



ESD3V3D3

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