SOCAY

Transient Voltage Suppressors for ESD Protection

Low Capacitance

SE05D3W11GY

Features

- Protects one uni-directional I/O line
- Low clamping voltage
- Working voltage: 5V
- Low leakage current
- RoHS compliant
- IEC 61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-5 (Lightning) 25A (8/20μs)

SOD-323



Applications

- Cell phone handsets and accessories
- Microprocessor based equipment
- Personal digital assistants (PDA's)
- Notebooks, desktops, and servers
- Portable instrumentation

Pin Configuration



Mechanical Characteristics

- SOD-323 Package
- Molding compound flammability rating: UL 94V-0
- Quantity per reel: 3,000pcs
- Lead finish: lead free
- Reel size: 7 inch

Absolute Maximum Ratings (TA=25℃ unless otherwise specified)

Parameter	Symbol	Value	Units
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	±30 ±30	kV
Lead Solering Temperature	T_L	260 (10 sec.)	℃
Operating Junction Temperature Range	T_J	−55 ~ +125	℃
Storage Temperature Range	T_{STG}	−55 ~ +150	℃

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Electrical Characteristics (@ T_A=25℃)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Reverse Working Voltage	V_{RWM}	--	--	--	5.0	V
Reverse Breakdown Voltage	V_{BR}	I_T = 1mA	6.0	--	--	V
Reverse Leakage Current	I_R	V_{RWM} = 5V	--	0.01	1.0	μA
Clamping Voltage	V_C	I_{PP} = 25A, t_P = 8/20μs	--	12.0	--	V
Junction Capacitance	C_J	V_R = 0 V, f = 1MHz	--	210	--	pF

Ratings and V-I Characteristics Curves (TA=25℃, unless otherwise noted)

Fig. 1 V-I Curve Characteristics (Uni-directional)

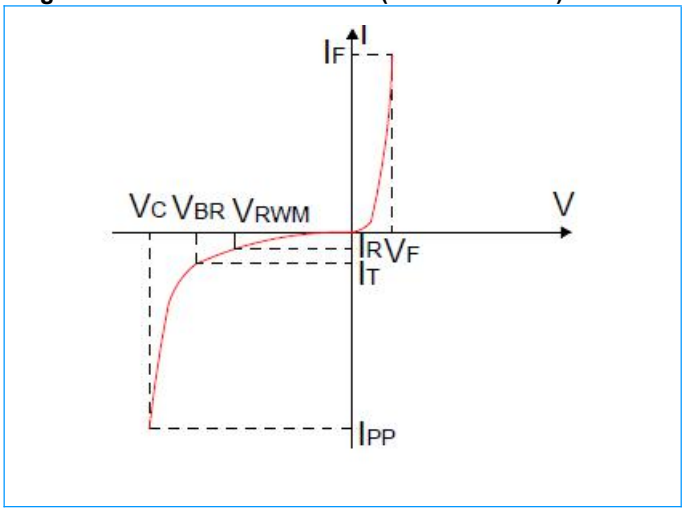


Fig.2 Pulse Waveform (8/20μs)

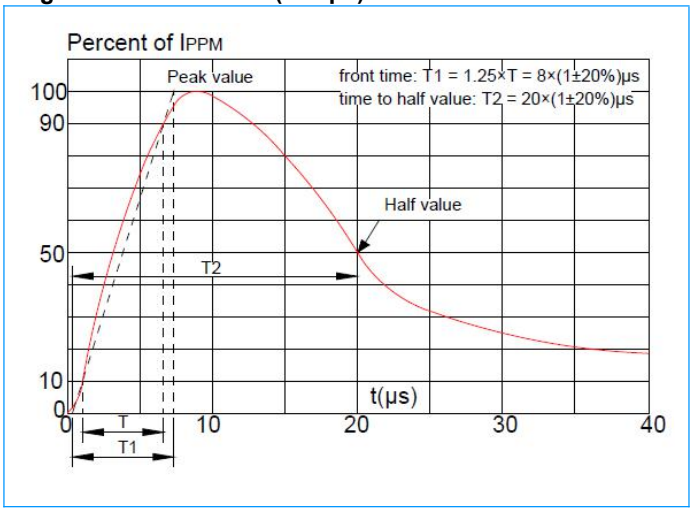


Fig. 3 Pulse Derating Curve

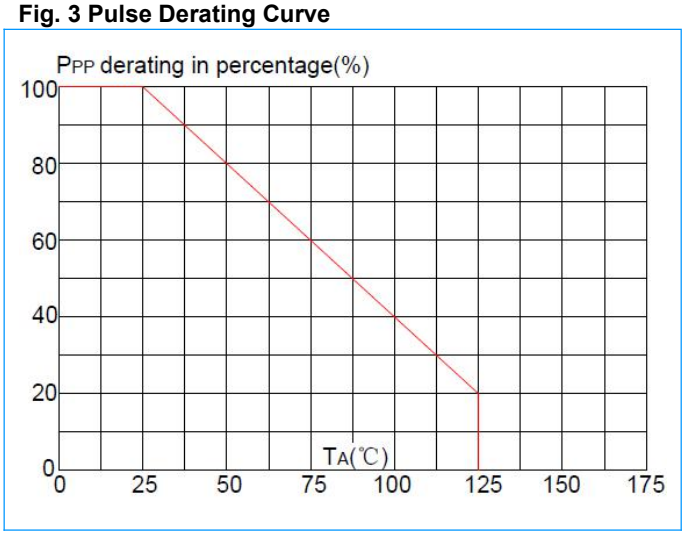
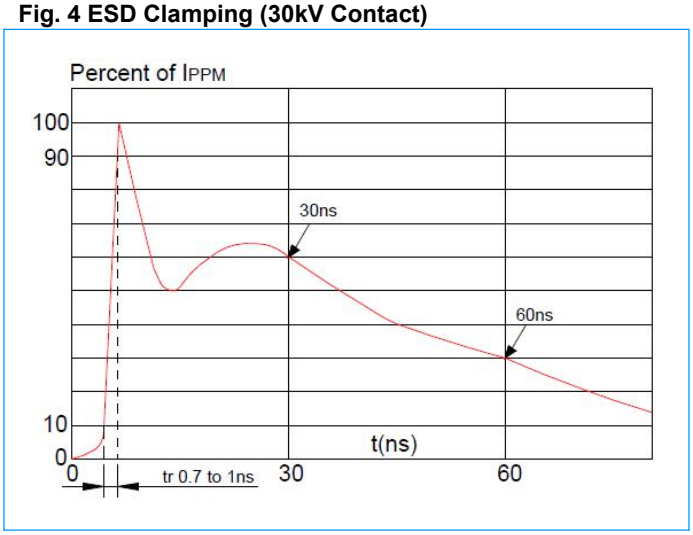


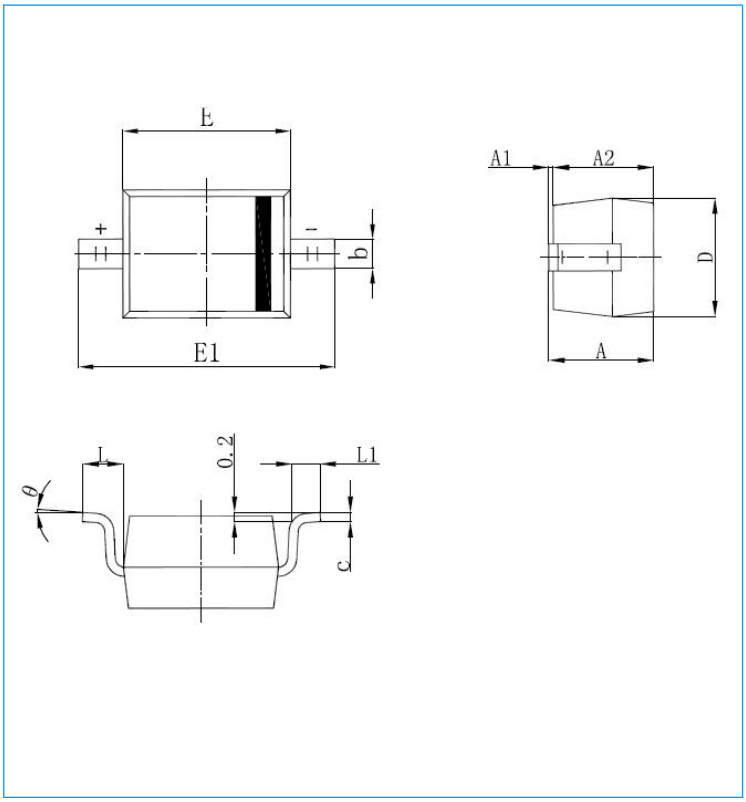
Fig. 4 ESD Clamping (30kV Contact)



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SOD-323 Package Outline Dimensions



Symbol	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	--	1.00	--	0.039
A1	0.00	0.10	0.000	0.004
A2	0.80	0.90	0.031	0.035
b	0.25	0.35	0.010	0.014
c	0.08	0.15	0.003	0.006
D	1.20	1.40	0.047	0.055
E	1.60	1.80	0.063	0.071
E1	2.55	2.75	0.100	0.108
L	0.475 REF.		0.019 REF.	
L1	0.25	0.40	0.010	0.016
θ	0°	8°	0°	8°

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