



CESD5V0D3

Uni-direction ESD Protection Diode

Features

350W(8x20us) Peak Pulse Power

Low Clamping Voltage

SOD-323 Package

RoHS Compliant

Matte Tin Lead finish (Pb-Free)

Protect One I/O or Power Line

Meet IEC61000-4-2 Level 4:

Contact Discharge > 30 kV

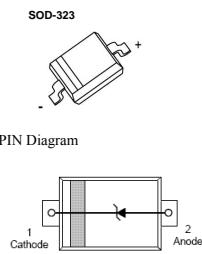
Air Discharge > 30 kV

Applications

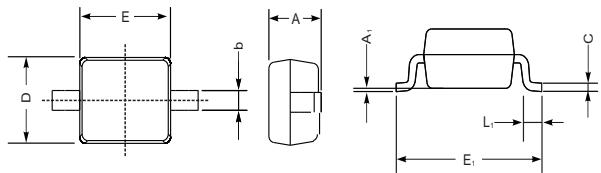
Smart Phones

Laptop Computers

Portable Electronics



SOD323



UNIT		A	C	D	E	E ₁	b	L ₁	A ₁
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—
mil	max	43	5.9	55	70	108	16	16	8
	min	32	3.1	47	63	100	9.8	7.9	—

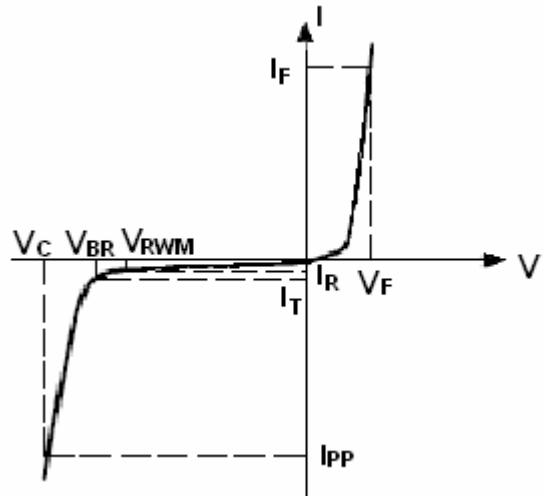
Maximum Ratings (Ta = 25°C)

Symbol	Parameter	Value	Unit
TJ	Junction Temperature	-55 to +150	°C
TSTG	Storage Temperature	-55 to +150	°C
Ipp Max	Maximum Peak Pulse Current	25	A
PPK	Peak Pulse Power	350	W

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ElectricalParameter

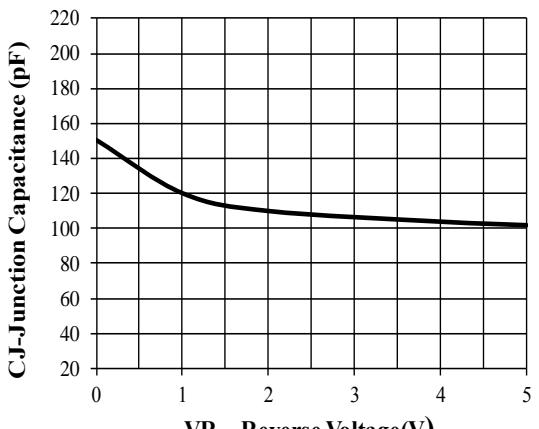
Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
I_T	Test Current
V_{BR}	Breakdown Voltage @ I_T
I_F	Forward Current
V_F	Forward Voltage @ I_F



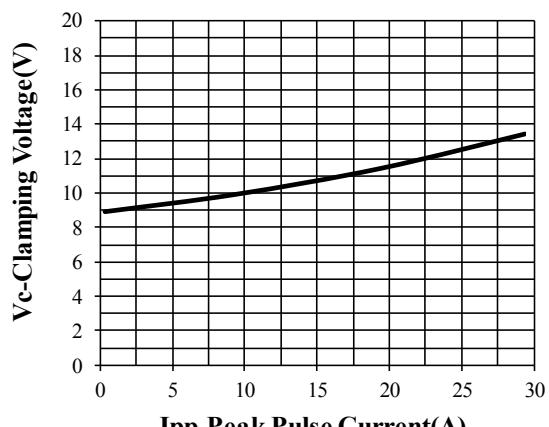
ElectricalCharacteristics(Ta25°C)

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V_{RWM}	Reverse Working Peak Voltage				5.0	V
V_{BR}	Reverse Breakdown Voltage	$I_T = 1\text{mA}$	6.0	7.2	8.0	V
I_R	Reverse Leakage Current	$V_{RWM} = 5 . 0 \text{ V}$			0.5	μA
V_C	Clamping Voltage	$I_{PP} = 1 \text{ A} (8/20\mu\text{s})$			13	V
V_C	Clamping Voltage	$I_{PP} = 2.5 \text{ A} (8/20\mu\text{s})$		12	20	V
I_{PP}	Peak Pulse Current	$t_{\text{tp}} = 8/20\mu\text{s}$			25	A
C_J	Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$		150	220	pF

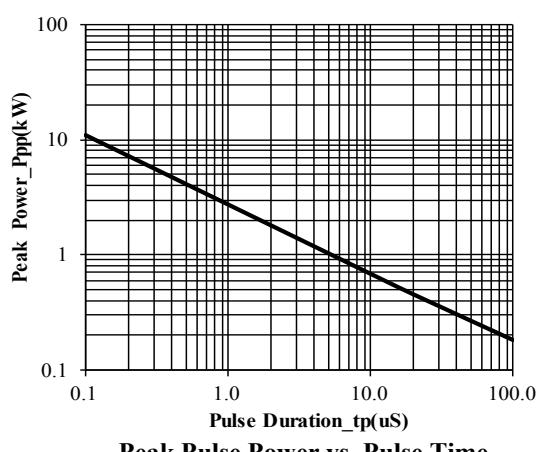
RATING AND CHARACTERISTIC CURVES (CESD5V0D3)



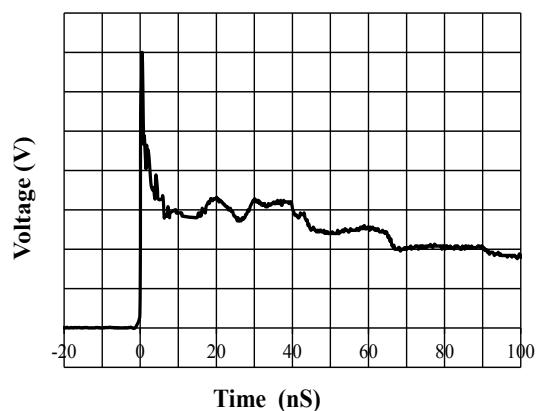
Junction Capacitance vs. Reverse Voltage



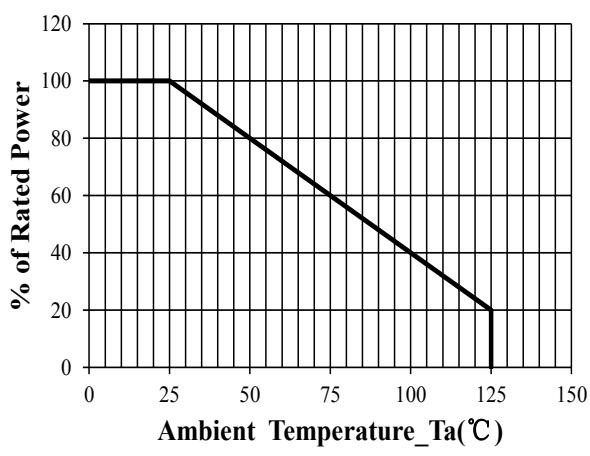
Clamping Voltage vs. Peak Pulse Current



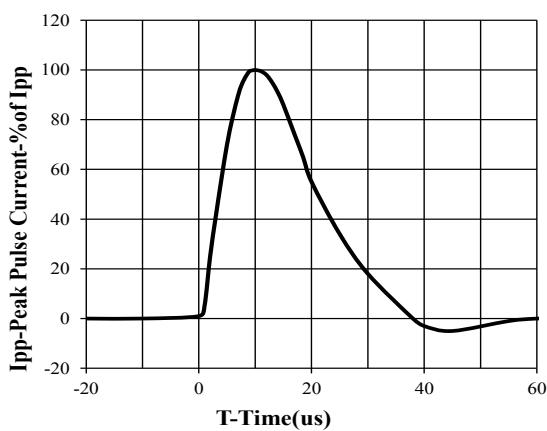
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform



Power Derating Curve



8 X 20us Pulse Waveform