PESD3V3L1BAF
ESD PROTECTION DIODE

Discription

Low capacitance bidirectional ElectroStatic Discharge (ESD) protection diode in a ultra-small and flat lead SOD-323 plastic package designed to protect one signal line from the damage caused by ESD and other transients.



SOD-323

Features

★ Bidirectional ESD protection of one line
★ Reverse stand-off voltage: 3.3V Max
★ Low leakage current: nA Level
★ Response time is typically < 1 ns
★ Low clamping voltage:VC < 16V @IPP=20A
★ ESD Protection: 30kV(air)/ 30kV(contact) (IEC61000-4-2)
★ RoHS compliant



Circuit Diagram

Applications

★ Cell Phone Handsets and Accessories
★ Microprocessor based equipment
★ Personal Digital Assistants (PDA's)
★ Notebooks,Desktops,and Servers

Ordering Information

Product ID	Pack	Qty(PCS)
PESD3V3L1BAF	SOD-323	3000

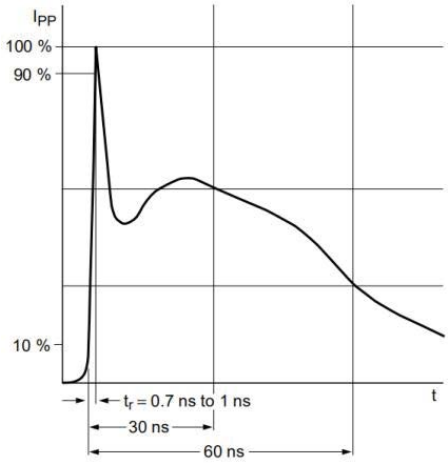
Absolute Ratings(Tamb = 25°C)

Parameter	Symbol	Value	Unit
Peak Pulse Power (tp = 8/20μs)	P_{PPM}	60	W
ESD voltage IEC 61000-4-2 (air discharge)	V_{ESD}	30	kV
ESD voltage IEC 61000-4-2 (contact discharge)	V_{ESD}	30	kV
Maximum lead temperature for soldering during 10s	T_L	260	°C
Storage Temperature Range	T_{stg}	-55 to +150	°C
Operating Temperature Range	T_{OP}	-40 to +125	°C

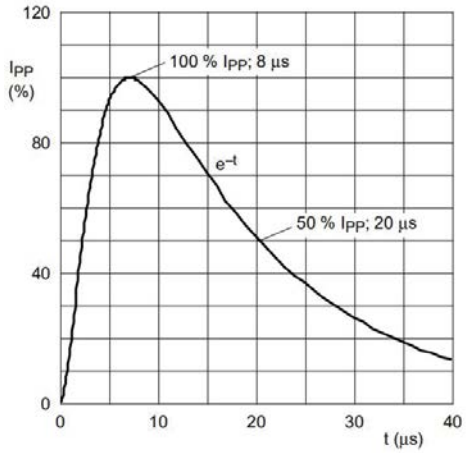
Electrical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Reverse Working Voltage	V_{RWM}	--	--	3.3	V	
Breakdown Voltage	V_{BR}	4.0	--		V	I_T=1mA
Leakage Current ILeak	I_R	--	--	40	uA	V_{RWM}=3.3V
Clamping Voltage	V_C	--	--	7.5	V	I_{PP}=1A,Tp=8/20μs
	V_C	--	--	16		I_{PP}=20A,Tp=8/20μs
Junction Capacitance	C_J	--	65	100	pF	V_R=0V, f=1MHz

Typical Characteristics

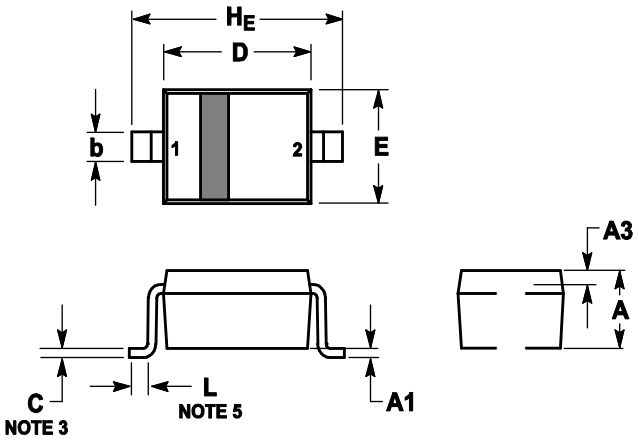


IEC61000−4−2 Waveform



IEC 61000-4-5 Waveform(8/20μs pulse)

Outline And Dimensions

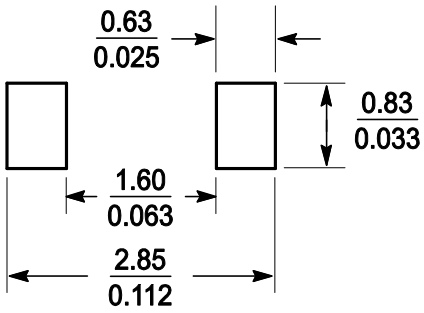


Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.8	0.9	1	0.031	0.035	0.04
A1	0	0.05	0.1	0	0.002	0.004
A3	0.15REF			0.006REF		
b	0.25	0.32	0.4	0.01	0.012	0.016
C	0.089	0.12	0.177	0.003	0.005	0.007
D	1.6	1.7	1.8	0.062	0.066	0.07
E	1.15	1.25	1.35	0.045	0.049	0.053
L	0.08			0.003		
H_E	2.3	2.5	2.7	0.09	0.098	0.105

Soledering Footprint



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HXY MOSFET:

HESDNC5VB1AF-B HMCP602-I/SN HT7150 HT7540-1 SQJA04EP-T1_BE3 SS5150B P6SMB33CA P6SMB36CA BZT52C13 DTC143ZE MMBT3904T PESD5V0S1BB SS1045 BZT52C3V3S HOPA2340UA HXY2300MI SS510C HXY2101EI TPSMB28A-VR HAD8542ARZ HC4D20120A MAX487ESA US2M HC3D10170A HXY8205ES IRLML6246PBF P6SMB200A SD15C SS10100 TPSMB100CA-VR