



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.

Features

- ★ Ultra Low Capacitance 1 pF(Typ)
- ★ Reverse stand-off voltage: 3.3V Max
- ★ Low leakage current: nA Level
- ★ Response time is typically < 1 ns
- ★ IEC61000-4-2 Level 4 ESD Protection
- ★ RoHS compliant

Applications

- ★ High-speed data lines
- ★ Smart phones
- ★ Display Ports
- ★ MDDI Ports
- ★ USB Ports
- ★ Digital Video Interface (DVI)
- ★ PCI Express and Serial SATA Ports

Ordering Information

Product ID	Pack	Qty(PCS)
LY323EC03UL	SOD-323	3000

Absolute Ratings(Tamb = 25°C)

Symbol	Parameter	Value	Units	
P _{PP}	Peak Pulse Power (t _p = 8/20 μ s)	400	W	
T _L	Maximum lead temperature for soldering during 10s	260	°C	
T _{stg}	Storage Temperature Range	-55 to +155	°C	
T _{op}	Operating Temperature Range	-40 to +125	°C	
	IEC61000-4-2 (ESD)	air discharge contact discharge	± 10 ± 15	KV
T _j	IMaximum junction temperature	150	°C	



SOD-323



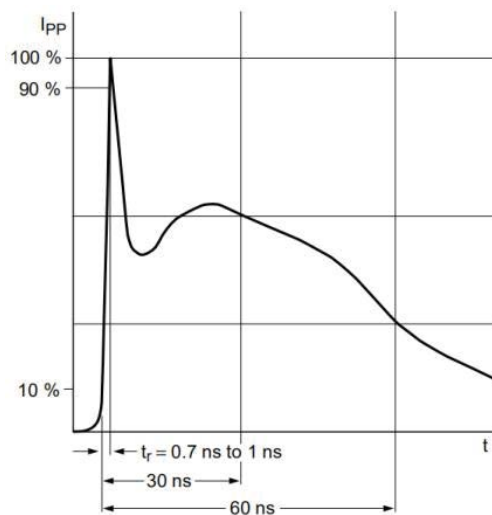
Circuit Diagram



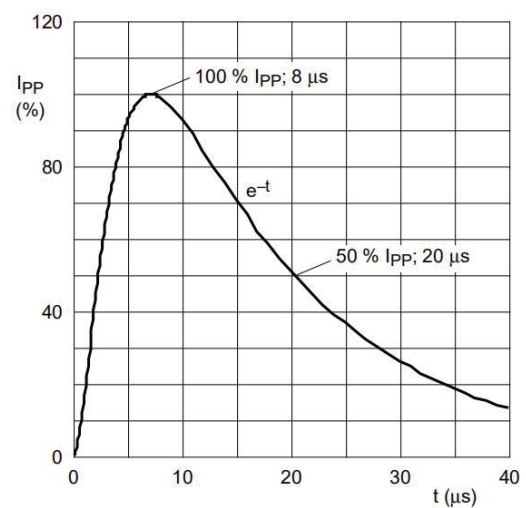
Electrical Characteristics

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				3.3	V
V_{BR}	Reverse Breakdown Voltage	$I_T = 1mA$	5.4			V
I_R	Reverse Leakage Current	$V_{RWM} = 3.3V$			1.0	μA
V_C	Clamping Voltage	$I_{PP} = 20A$, $t_p = 8/20\mu s$			20.0	V
C_J	Junction Capacitance	$V_R = 0V$, $f = 1MHz$		1.0		pF

Typical Characteristics



IEC61000-4-2 Waveform



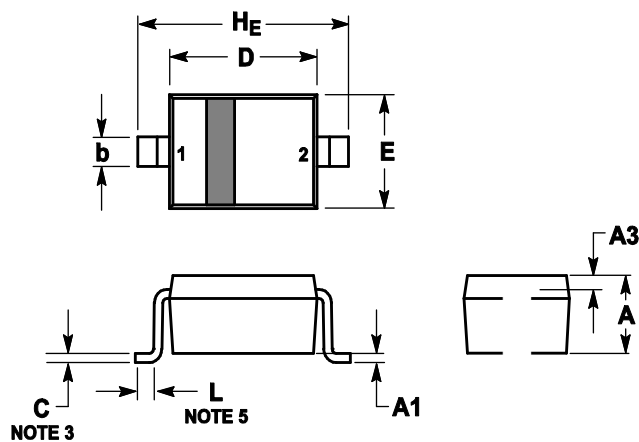
IEC 61000-4-5 Waveform(8/20 μs pulse)



Outline And Dimensions

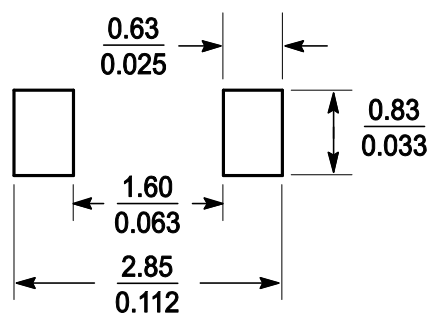
Notes:

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

Soldering Footprint





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