

**BIDIRECTIONAL
ESD PROTECTION DIODES**

STAND-OFF VOLTAGE - **5.0** Volts
POWER DISSIPATION - **350** WATTS

GENERAL DESCRIPTION

• Electro Static Discharge (ESD) protection diodes in ultra small SMD Plastic packages designed to protect one signal line from the damage caused by ESD and other transients.

FEATURES

- Bidirectional ESD protection of one line.
- Max. peak pulse power : Ppp = 350W at tp = 8/20 us
- Low clamping voltage : VCL = 14.5V
- ESD protection >25KV per MIL-STD-883C, Method 3015-6:Class3
- IEC 61000-4-2, level 4 (ESD), >15KV (air) ; >8KV (contact).
- IEC 61000-4-5 , level 2 (surge); Ipp = 24A at tp = 8/20 us.
- Qualified to AEC-Q101 Rev_C

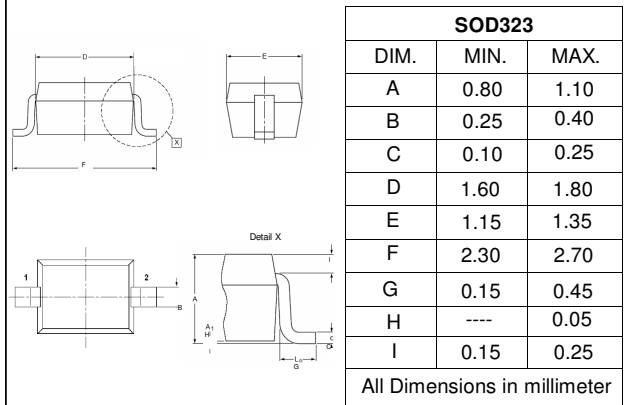
APPLICATION

- Computers and peripherals
- Communication system
- Notebooks. Desktops & Servers.
- Portable electronics
- Cellular handsets and accessories.

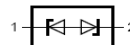
MECHANICAL DATA

- Case Material: "Green" molding compound UL flammability classification 94V-0 (No Br.Sb, Cl)
- Terminals: Lead Free Plating (Matte Tin Finish)
- Component in accordance to RoHs 2011/65/EU

SOD323



PIN ASSIGNMENT	
1	Cathode
2	Cathode



MAXIMUM RATINGS (Tj= 25°C unless otherwise noticed)

Rating	Symbol	Value	Unit
Peak pulse Power (8/20us Waveform)	PPPM	350	W
Peak Pulse Current (8/20us Waveform)	IPP	24	A
Operating Junction Temperature Range	TJ	-55 to + 125	°C
Storage Temperature Range	Tstg	-55 to + 150	°C
Soldering Temperature, t max = 10s	TL	260	°C

ELECTRICAL CHARACTERISTICS (Tj= 25°C unless otherwise noticed)

Parameter	Symbol	Conditions	Min	Max	Unit
Reverse standoff voltage	VDRM	---	---	5.0	V
Reverse leakage current	IRM	VDRM = 5 V	---	10	uA
Breakdown voltage	VBR	IR = 1 mA	6.0	---	V
Diode capacitance	CJ	VR = 0 V , f = 1MHz	---	200	pF
Clamping voltage	VCL	IPP = 24 A (8/20us)	---	14.5	V

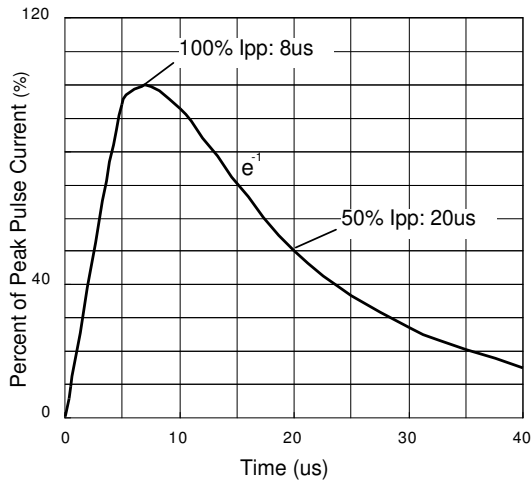


Figure 1. 8/20 us pulse waveform according to IEC 61000-4-5

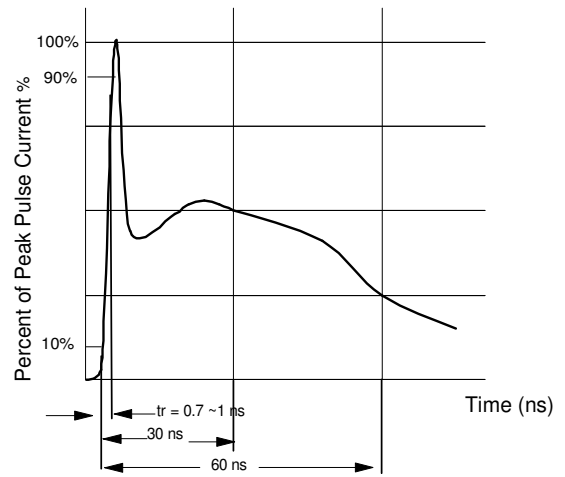


Figure 2. ESD pulse waveform according to IEC 61000-4-2

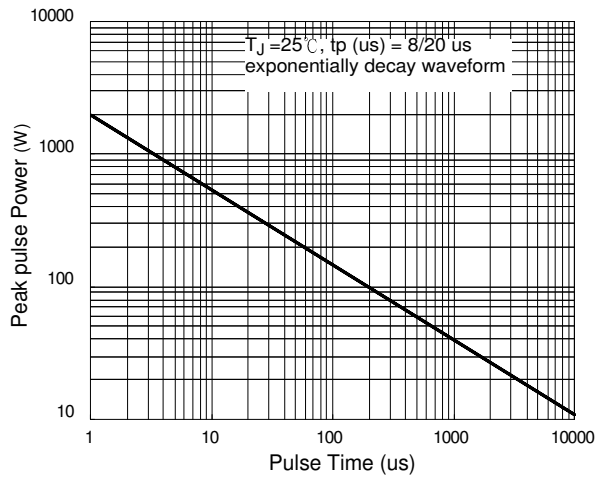


Figure 3. Power Dissipation versus Pulse Time

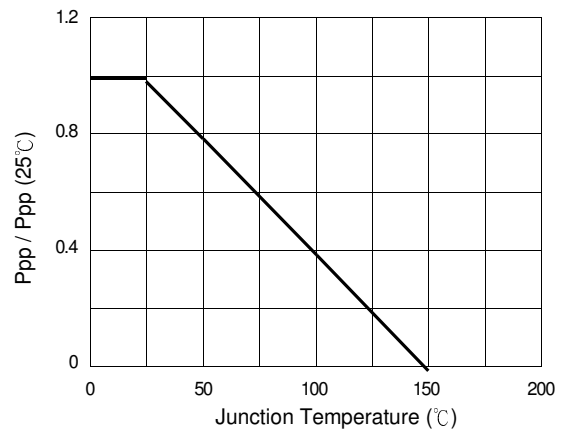


Figure 4. Peak pulse power versus TJ

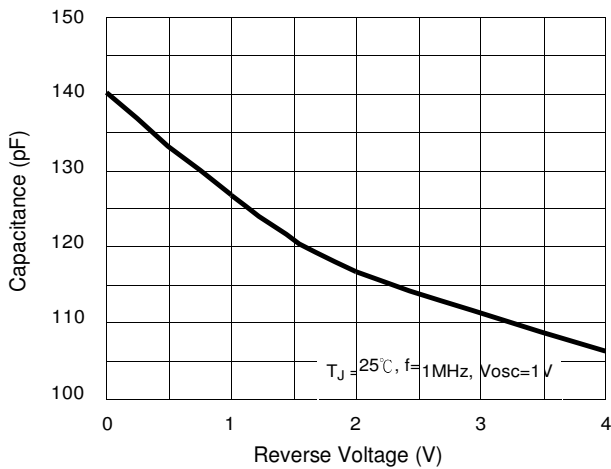


Figure 5. Typical Junction Capacitance

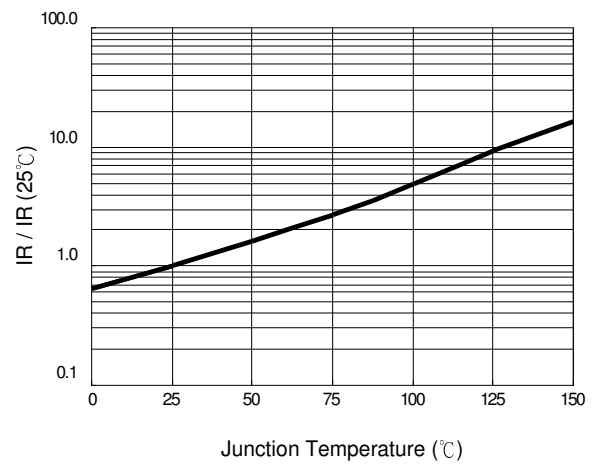


Figure 6. Reverse Leakage Current versus TJ

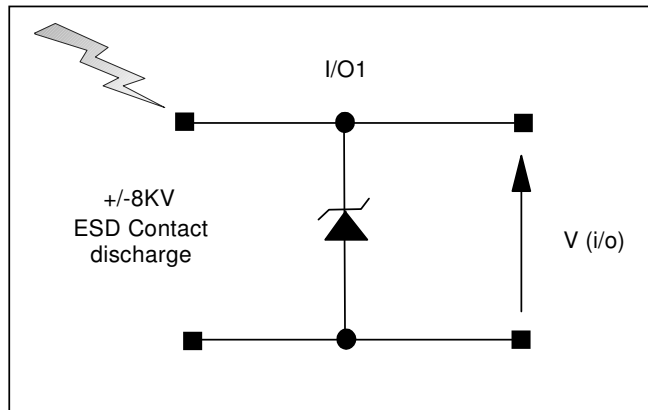


Figure 7. ESD Test Configuration

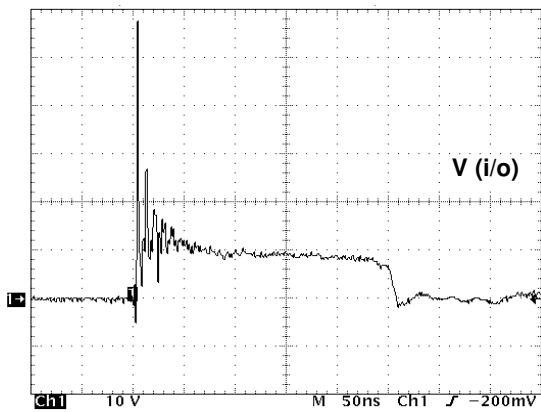


Figure 8. Clamped +8 kV ESD voltage waveform

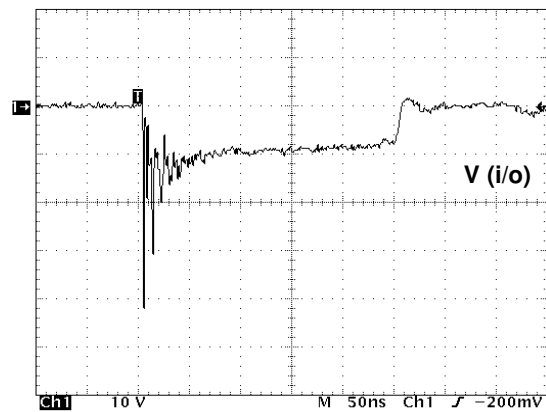
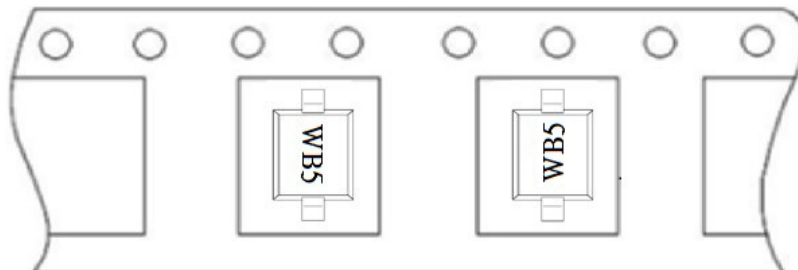


Figure 9. Clamped -8 kV ESD voltage waveform

Marking & Orientation

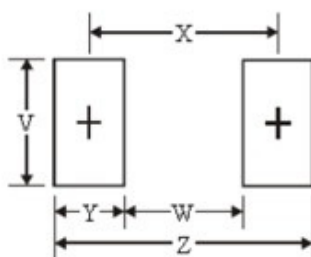


Note: Marking is none direction

Packaging Information

DEVICE	Q'TY/REEL (PCS)	REEL DIA. (INCH)	Q'TY/BOX (PCS)	Q'TY/CARTON (PCS)
L35ESD5V0CB2	3000	7	45000	90K/180K

SOD-323 Soldering Pad Layout



Dim.	Millimeters	Inches
Z	3.05	0.120
X	2.15	0.084
W	1.25	0.049
Y	0.90	0.035
V	0.70	0.027

Important Notice and Disclaimer

LSC reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

LSC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does LSC assume any liability for application assistance or customer product design. LSC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of LSC.

LSC products are not authorized for use as critical components in life support devices or systems without express written approval of LSC.