

**DUAL ESD PROTECTION DIODES**

STAND-OFF VOLTAGE - **5 Volts**  
POWER DISSIPATION - **340 WATTS**

**GENERAL DESCRIPTION**

- The L30ESDL5V0C3-2 is a ultra low capacitance Electrostatic Discharge (ESD) protection diode in a SOT23 (TO236AB) small SMD plastic package designed to protect one high speed data line from the damage caused by ESD and other transients.

**FEATURES**

- Unidirectional ESD protection of two line.
- Max. peak pulse power : Ppp = 340W at tp = 8/20 us
- Ultra low diode capacitance : Cd : 5pF
- ESD protection > 23KV
- IEC 61000-4-2, level 4 ( ESD ),>15KV(air) ;>8KV(contact) .
- IEC 61000-4-5, level 1
- Low clamping voltage

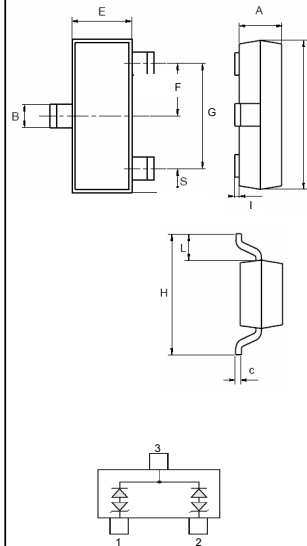
**APPLICATION**

- Computers and peripherals
- Communication system
- 10/100/1000 Ethernet
- Local Area Network (LAN) equipment.
- High speed data line
- 100%Tin Matte finish (Lead-Free Product)

**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 2002/95/EC
- Weight : 0.007 ounces, 0.21 gram

**SOT23**



SOT23		
DIM.	MIN.	MAX.
A	0.89	1.40
B	0.30	0.51
C	0.085	0.18
D	2.75	3.04
E	1.20	1.60
F	0.85	1.05
G	1.70	2.10
H	2.10	2.75
I	0.0	0.1
L	0.6 typ.	
S	0.35	0.65

All Dimensions in millimeter

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	340	W
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 standoff current	IRM	VDRM = 5.0V	---	5	uA
Breakdown voltage	VBR	IR = 1 mA	6.4	---	V
Diode capacitance	CJ	VR = 0 V , f = 1MHz	---	5	pF
Clamping Voltage	VC	Ipp= 1 A	---	9.8	V
Clamping Voltage	VC	Ipp= 17 A	---	20	V
Max.peak pulse current	Ipp	8/20 us	---	17	A

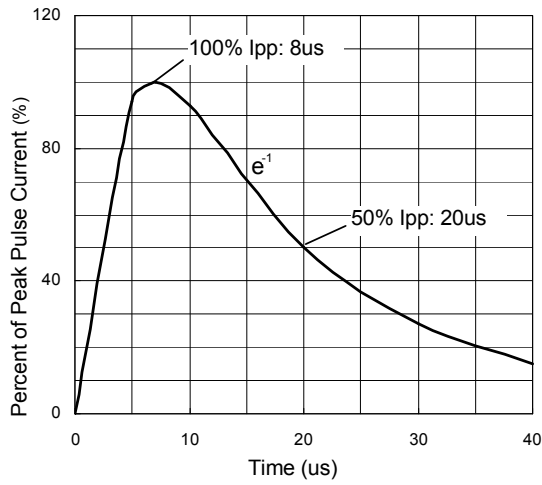


Figure 1. 8/20 us pulse waveform according to IEC 61000-4-5

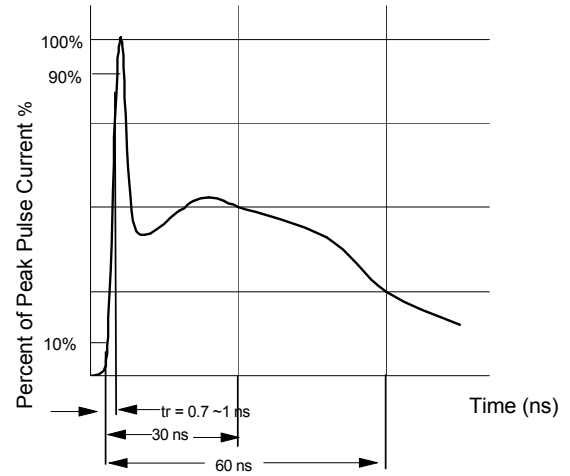


Figure 2. ESD pulse waveform according to IEC 61000-4-2

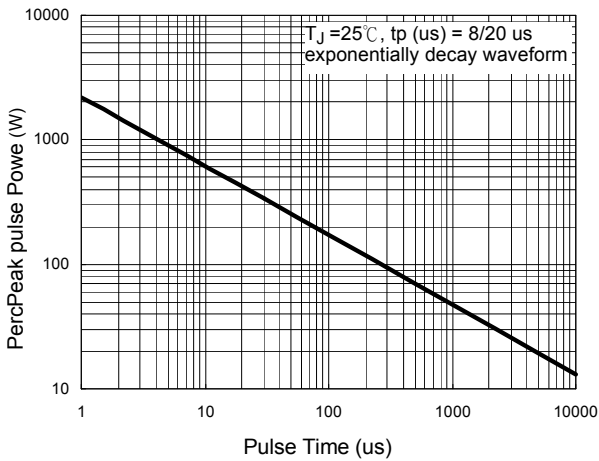


Figure 3. Power Dissipation versus Pulse Time

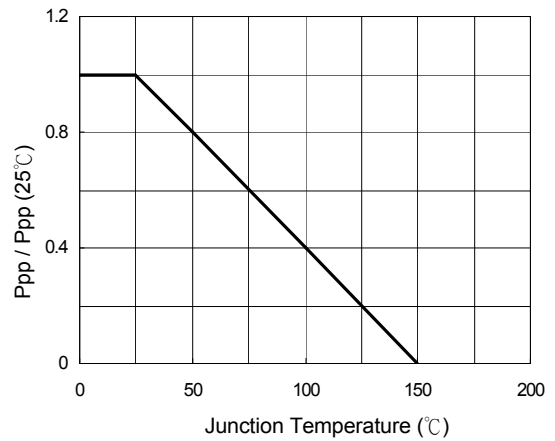


Figure 4. Peak pulse power versus TJ

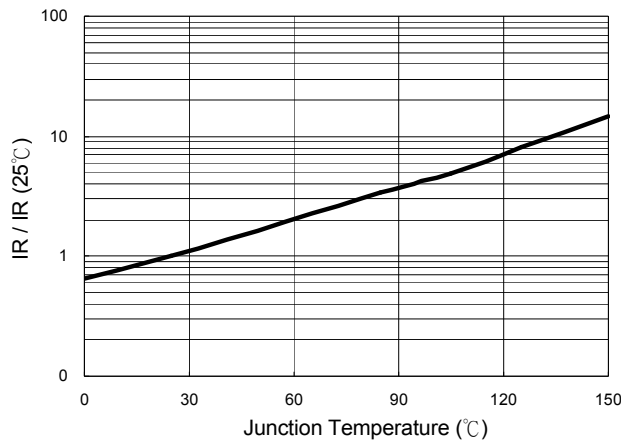


Figure 6. Reverse Leakage Current versus TJ