ESDLC5V0D8B

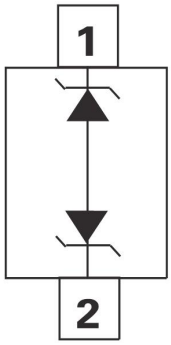
Description

The ESDLC5V0D8B in a SOD-882 package and will protect bidirectional line. These devices are designed to replace multilayer varistors (MLVs) in portable applications such as cell phones, notebook computers, and PDA's. They offer superior electrical characteristics such as lower clamping voltage and no device degradation when compared to MLVs, The ESDLC5V0D8B are designed to protect sensitive semiconductor components from damage or upset due to electrostatic discharge (ESD),and other voltage induced transient events.

Feature

- Case : SOD882 package
- Low Capacitance 3 pF
- Low clamping voltage
- Low Leakage current
- Response Time is Typically < 1.0 ns
- IEC61000 4 2 Level 4 ESD Protection
- This is a Pb−Free Device

Schematic & PIN Configuration



Applications

- Cellular phones
- Portable devices
- Digital cameras
- Power supplies

Absolute Maximum Ratings

Parameter	Symbol	Value	Units
IEC61000-4-2 (Contact)	V_{ESD}	10	kV
IEC61000-4-2 (Air)	V_{ESD}	15	kV
Lead Soldering Temperature	T_L	260 (10 sec)	° C
Operating Temperature	T_J	-55 to 125	° C
Storage Temperature Range	T_{STG}	-55 to 150	° C

Electrical Characteristics (T =25° C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	It = 1mA	5.5			V
Reverse Leakage Current	I_R	V_R =V_{RWM}			100	nA
Clamping Voltage	V_C	I_{PP}=3.5A, t_P = 8/20μs		11.5		V
Peak pulse Current	I_{PP}	t_P = 8/20μs			3.5	A
Junction Capacitance	C_J	V_R=0V, f = 1MHz		2.7	3.5	pF

Rating & Characteristic Curves

Figure 1 - Electrical Parameter

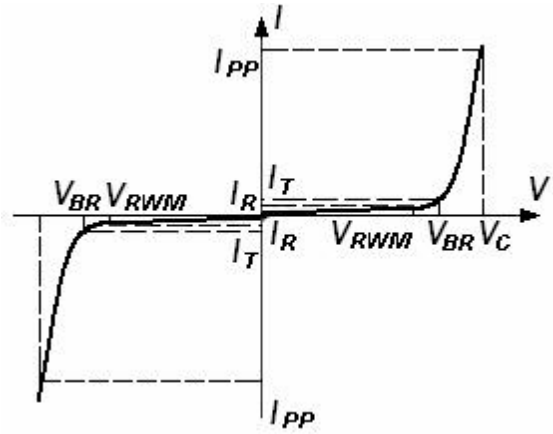


Figure 2- Pulse Waveform

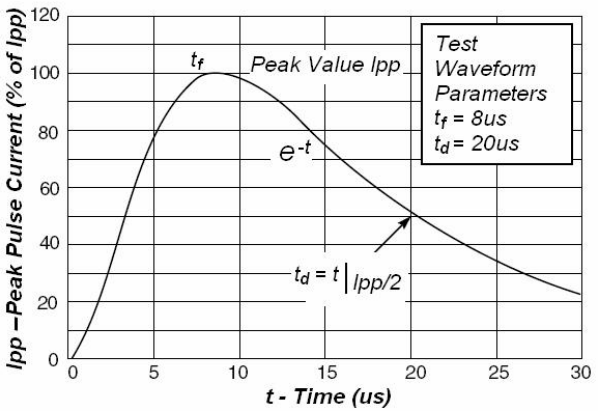


Figure 3- ESD Clamping Voltage Screenshot
Positive 8 kV Contact per IEC61000-4-2

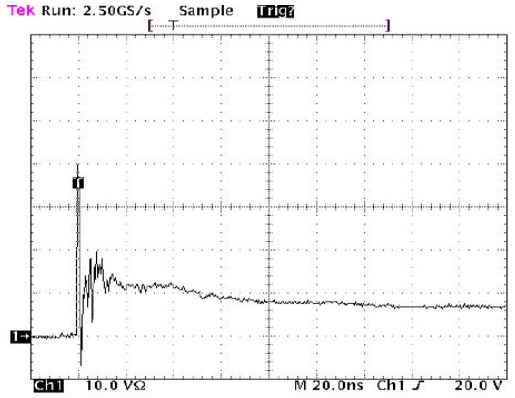
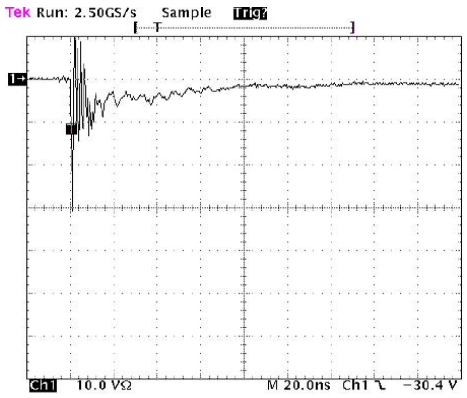
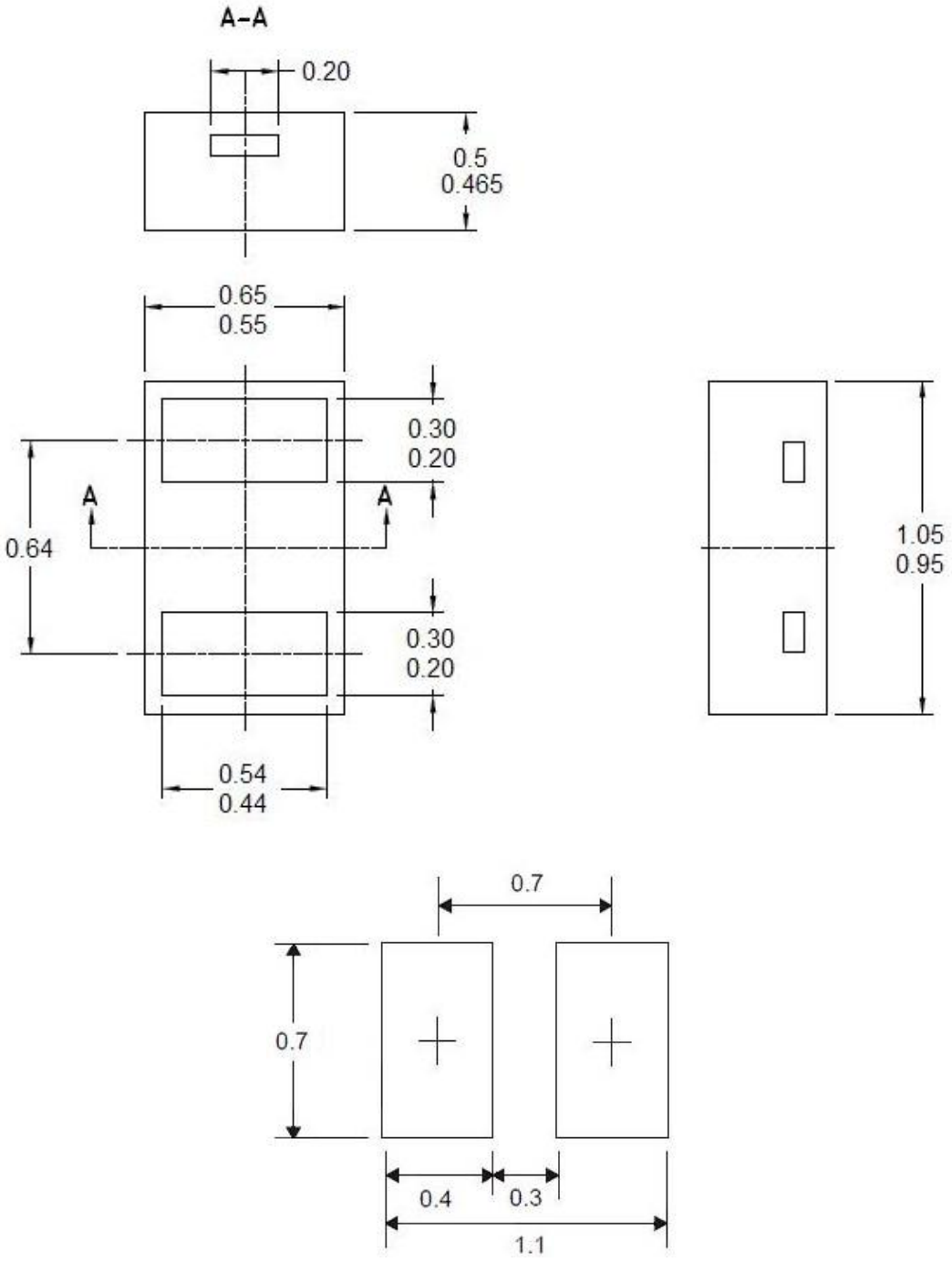


Figure 3- ESD Clamping Voltage Screenshot
Negative 8 kV Contact per IEC61000-4-2



PACKAGE OUTLINE DIMENSIONS in millimeters :**SOD882**



Disclaimer

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.