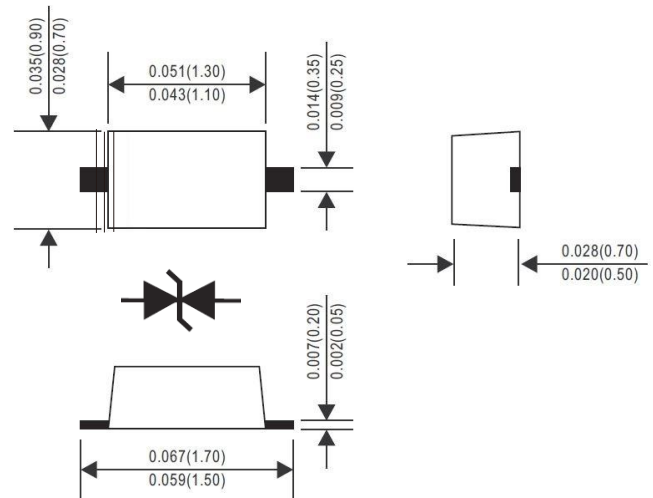


Description

The SYESD5B5CL is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium. Because of its small size, it is suited for use in cellular phones, portable devices, digital cameras, power supplies and many other portable applications where board space comes at a premium. Also because of its low capacitance, it is suited for use in high frequency designs such as USB 2.0 high speed, VGA, DVI, SDI and other high speed line applications.

This device has been specifically designed to protect sensitive components which are connected to data and transmission lines from overvoltage caused by ESD (electrostatic discharge), and EFT (electrical fast transients).



Dimensions in inches and (millimeters)

General Features

- ✧ IEC61000-4-2 (ESD) ±8kV (Contact), ±15kV (Air)
- ✧ IEC61000-4-4 (EFT) 40A (5/50ns)
- ✧ Peak power dissipation: 40W (8/20µs)
- ✧ Protects one I/O line
- ✧ Low clamping voltage
- ✧ Working voltages : 5V
- ✧ Low leakage current
- ✧ Low capacitance
- ✧ Marking: LB

Application

- ✧ High Speed Line :USB1.0/2.0, VGA, DVI, SDI,
- ✧ Serial and Parallel Ports
- ✧ Notebooks, Desktops, Servers
- ✧ Projection TV
- ✧ Cellular
- ✧ Portable
- ✧ Peripher

**Absolute Maximum Ratings (TC=25°C unless otherwise noted)**

Symbol	Parameter	Value	Units
V _{ESD}	ESD per IEC 61000-4-2 (Contact) ESD per IEC 61000-4-2 (Air)	±8 ±15	kV
P _{PP}	Peak Pulse Power (8/20μs)	40	W
T _{OPT}	Operating Temperature	-55~150	°C
T _{STG}	Storage Temperature	-55~150	°C

Electrical Characteristics (T_A = 25 °C Unless Otherwise Noted)

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V _{RWM}	Reverse Working Voltage				5.0	V
V _{BR}	Reverse Breakdown Voltage	I _T = 1mA	5.2		8.0	V
I _R	Reverse Leakage Current	V _{RWM} = 5V			2.0	μA
V _C	Clamping Voltage	I _{PP} = 1A, t _p = 8/20μs			9	V
C _J	Junction Capacitance	V _R = 0V, f = 1MHz		4.5	6	pF

Typical Characteristics

