Trustworthy electronic circuit protection expert

ESDULC5V0D5

Description

The ESDULC5V0D5 is designed to protect voltage sensitive components that require ultra−low capacitance from ESD and transient voltage events. Excellent clamping capability, low capacitance, 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 low capacitance, it is suited for use in high frequency designs such as USB 2.0 high speed and antenna line applications.

Features

- Ultra Low Capacitance 0.5 pF
- Low Clamping Voltage
- Small Body Outline Dimensions
- Stand−off Voltage: 5 V
- Low Leakage
- Response Time is Typically < 1.0 ns
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    Air discharge: ±15kV
    Contact discharge: ±8kV
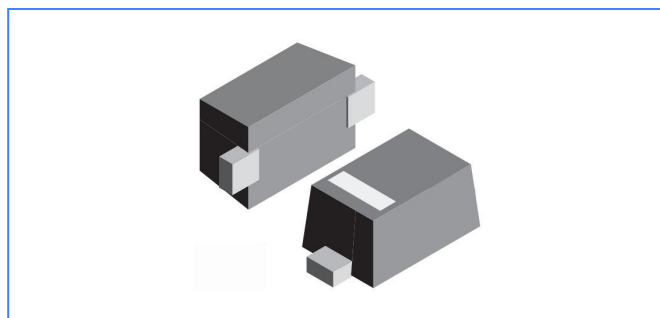
Functional Diagram
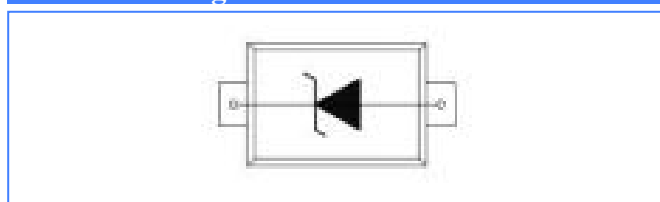
Absolute Maximum Ratings(Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20µs)	P_{PP}	100	Watts
ESD per IEC 61000−4−2 (Air)	V_{ESD}	±15	KV
ESD per IEC 61000−4−2 (Contact)		±10	KV
Lead Soldering Temperature	TL	260 (10 sec)	°C
Operating Temperature Range	T_J	-55 to +125	°C
Storage Temperature Range	T_{STJ}	-55 to +150	°C

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Electrical Characteristics (TA = 25 °C unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	I_t = 1mA	5.4			V
Reverse Leakage Current	I_R	V_R = V_{RWM}			1	µA
Clamping Voltage	V_C	I_{PP}=1A, t_P = 8/20µs			9.8	V
Junction Capacitance	C_J	V_R=0V, f = 1MHz		0.5	0.9	pF

Characteristics Curves

Figure 1- Power Derating Curve
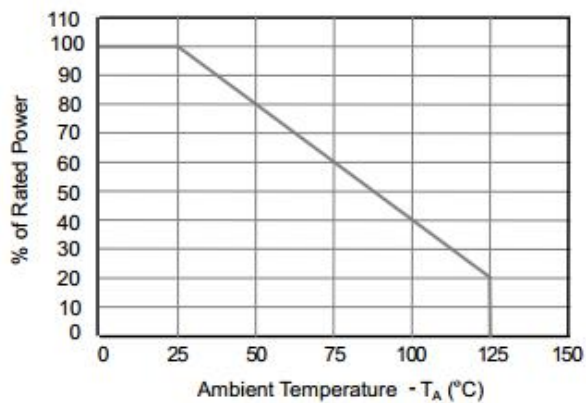
Figure 2- ESD Pulse Waveform
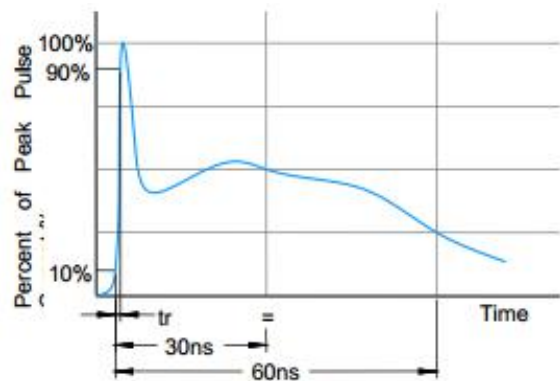(according to IEC 61000-4-2)

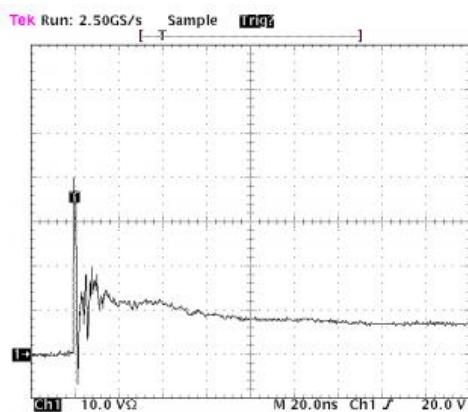Figure3- ESD Clamping Voltage Screenshot Positive 8 kV Contact per IEC61000−4−2

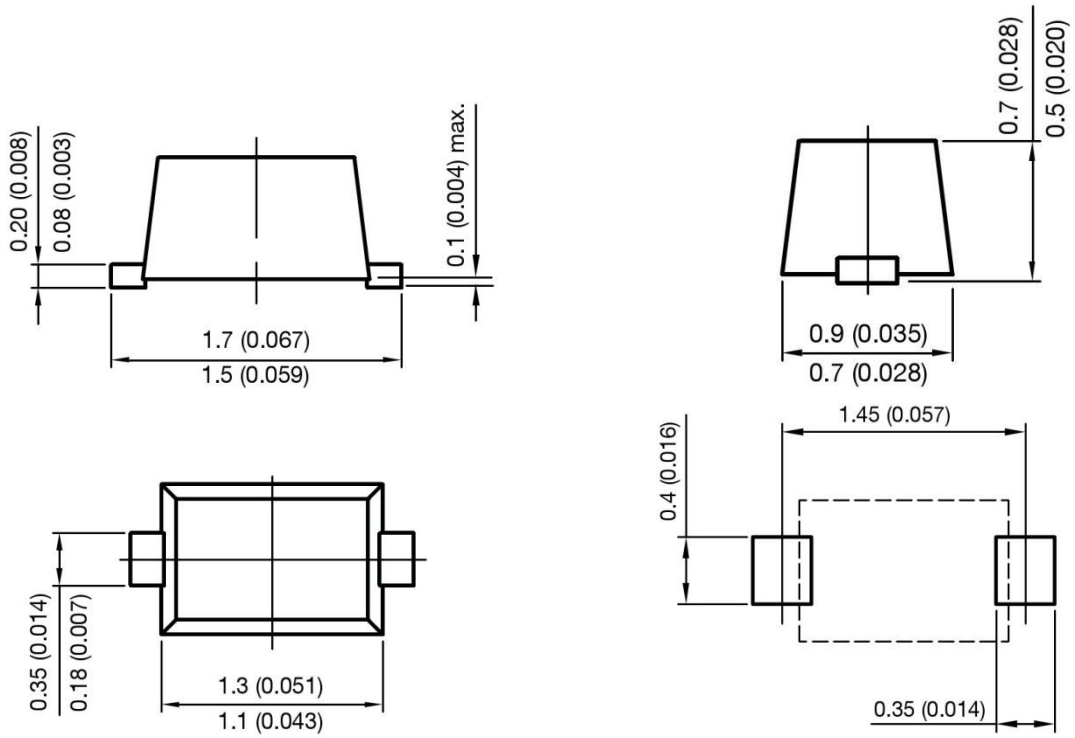Figure4- ESD Clamping Voltage Screenshot Negative 8 kV Contact per IEC61000−4−2

单击下面可查看定价，库存，交付和生命周期等信息

>>Yint(音特电子)