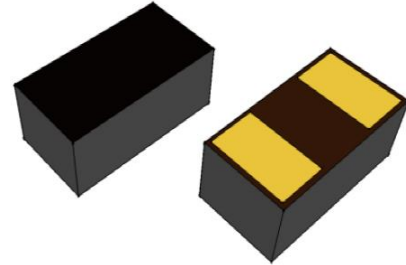




Features

- The best ESD protection for high speed ,high frequency and low voltage applications
- RoHS compliant and halogen free
- Ultra low capacitance : $C_j=0.05\text{pF}$ (typ)
- Low clamping voltage according to IEC61000-4-2
- Low leakage current: $<10\text{nA}$
- Response time is typically $<1.0\text{ns}$
- IEC61000-4-2 (ESD): $\pm 8\text{Kv}$ (contact), $\pm 15\text{Kv}$ (air)
- Surface mount



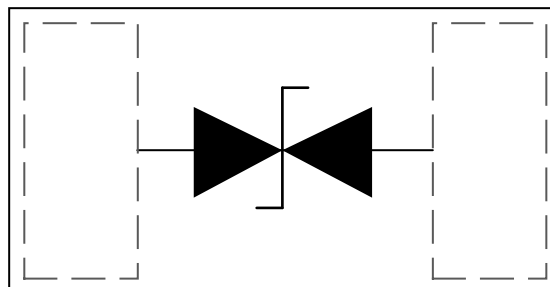
Applications

- USB2.0 and USB3.0
- Ultra-high-speed data line
- Sensitive interfaces lines
- High Definition Multi-media Interface(HDMI)
- Antenna applications
- 10/100/1000Mbit/s Ethernet

Mechanical Data

- Molding compound flammability rating: UL94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

Schematic & PIN Configuration





Absolute Maximum Rating

Rating	Symbol	Value	Units
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	15 8	kV
Lead Soldering Temperature	T_L	260(10seconds)	°C
Junction Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{stg}	-55 to + 125	°C

Electrical Characteristics

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Continuous Operating Voltage	V_{DC}				12	V
Reverse Leakage Current	I_R	$V_{DC}=12V, T=25^{\circ}C$		0.01	0.1	μA
Clamping Voltage	V_T	IEC61000-4-2 8kVcontact discharge		300		V
Clamping Voltage	V_C	IEC61000-4-2 8kVcontact discharge		35		V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		0.05		pF



Typical Characteristics

Figure1: ESD pulse waveform according to IEC 61000-4-2

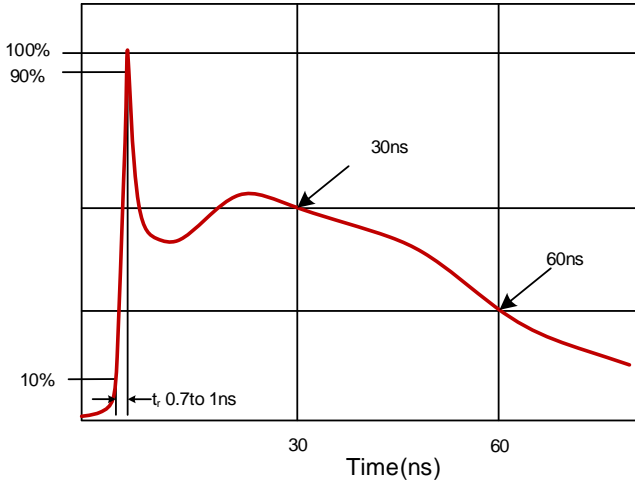
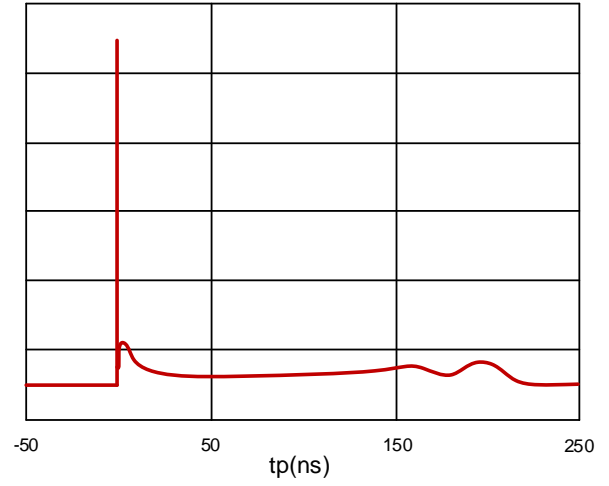
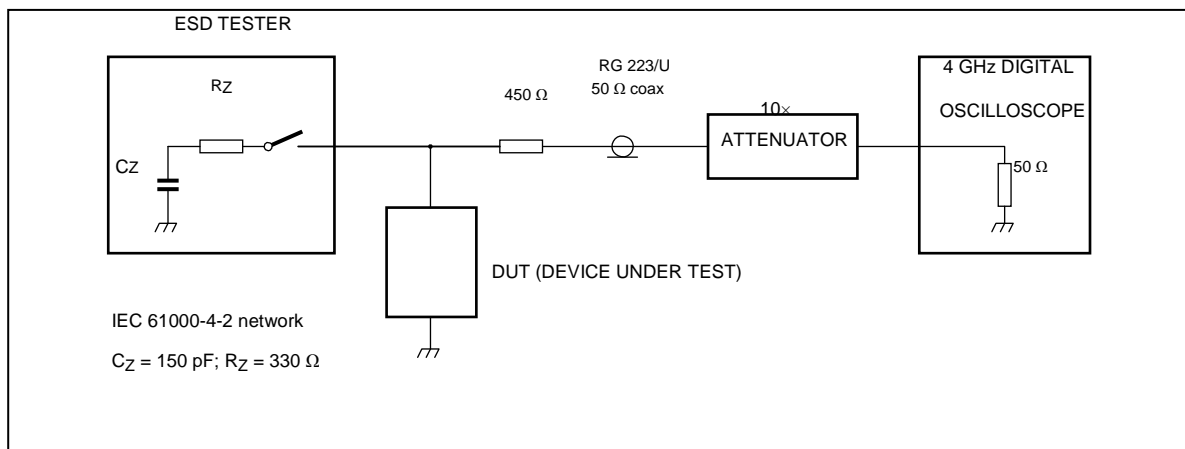


Figure 2: 8kV Contact ESD pulse clamping per IEC61000-4-2

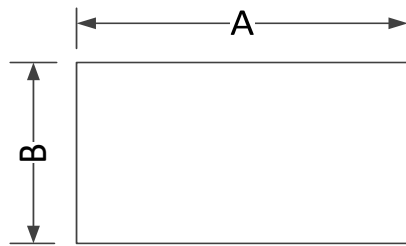


ESD Clamping Test

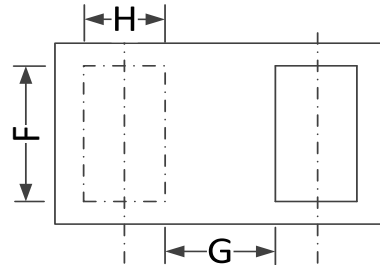




Outline Drawing-0402



TOP VIEW



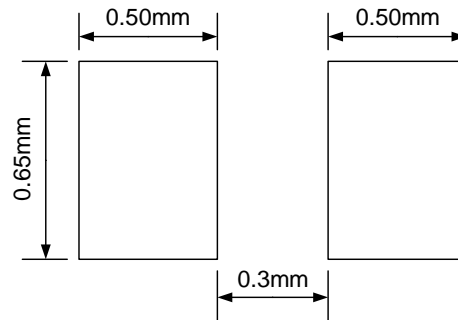
BOTTOM VIEW



SIDE VIEW

COMMON DIMENSION (MM)			
REF.	MIN.	NOM.	MAX.
A	0.95	1.0	1.05
B	0.45	0.50	0.55
C	0.32	0.36	0.40
H	0.28	0.30	0.32
F	0.40	0.43	0.45
G	0.32	0.34	0.36

Land Pattern *



* This Land Pattern is For Reference Purposes Only

Ordering Information

Part number	Package	Type	Reel size	MOQ
PESD0402V12	0402	T/R	7 inch	10k/reel