



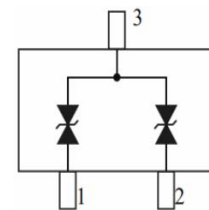
Discription

The HPESD1CAN-UX protects sensitive semiconductor components from damage or upset due to electrostatic discharge (ESD) and other voltage induced transient events. Excellent clamping capability, low leakage, low capacitance, and fast response time provide best in class protection on designs that are exposed to ESD.

It gives designer the flexibility to protect two bi-directional lines in applications where arrays are not practical.



SOT-323



Circuit Diagram

Features

- ★ Transient protection for high-speed data lines
IEC 61000-4-2(ESD) $\pm 15\text{kV}$ (Contact)
 $\pm 15\text{kV}$ (Air)
IEC 61000-4-4(EFT) 40A (5/50 ns)
- ★ Peak power dissipation: 220W (8/20us)
- ★ Working voltages : 24V
- ★ Protects one bidirectional line or two bidirectional lines
- ★ Low clamping voltage
- ★ Low leakage current

Ordering information

Product ID	Pack	Qty(PCS)
HPESD1CAN-UX	SOT-323	3000

Absolute Ratings($T_{amb} = 25^{\circ}\text{C}$)

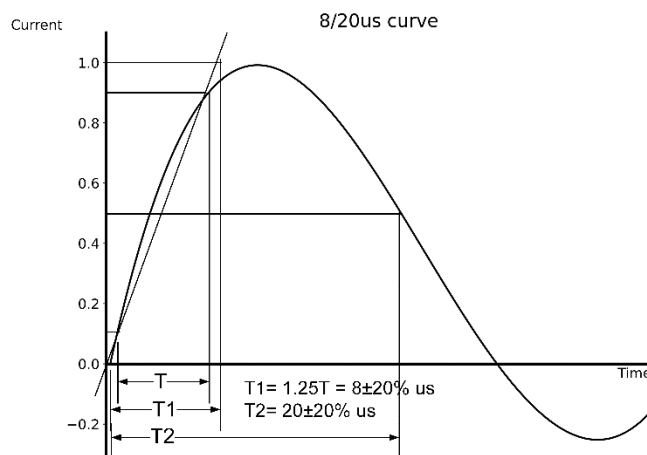
Symbol	Parameter	Value	Units
P_{PP}	Peak Pulse Power ($t_p = 8/20 \mu s$)	220	W
T_L	Maximum lead temperature for soldering during 10s	260	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55 to +155	$^{\circ}\text{C}$
T_{op}	Operating Temperature Range	-40 to +125	$^{\circ}\text{C}$
T_j	Maximum junction temperature	150	$^{\circ}\text{C}$
	IEC61000-4-2 (ESD) air discharge contact discharge	± 15 ± 15	KV
	IEC61000-4-4 (EFT)	40	A



Electrical Characteristics

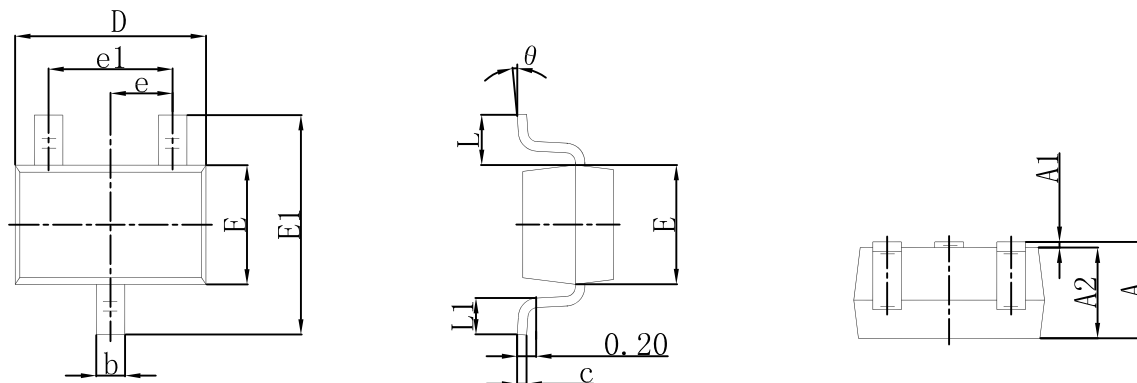
Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				24	V
V_{BR}	Reverse Breakdown Voltage	$I_T = 1mA$	26			V
I_R	Reverse Leakage Current	$V_{RWM} = 24V$			1.0	μA
V_C	Clamping Voltage	$I_{RWM} = 1A, t_p = 8/20\mu s$		35		V
		$I_{RWM} = 4A, t_p = 8/20\mu s$		45		V
C_J	Junction Capacitance	$V_R = 0V, f = 1MHz$		10		pF

Typical Characteristics





SOT-323 Package Information



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
K	0°	8°	0°	8°



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