

ESDSRDA3.3-4

Description

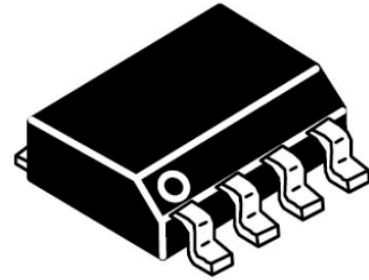
Low Capacitance TVS Diode Array For High Speed Interface

Features

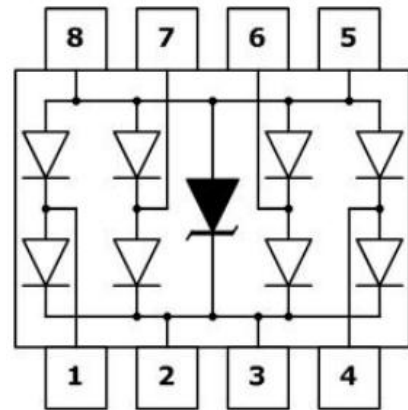
- Ultra low leakage
- Operating voltage: 3.3V
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 15\text{kV}$
 - Contact discharge: $\pm 8\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 24A (8/20 μs)
- RoHS Compliant

Applications

- I²C Bus Protection
- Microcontroller Input Protection
- Analog Video Protection
- T3/E3 secondary IC Side Protection
- T1/E1 secondary IC Side Protection
- 10/100 Ethernet



Functional Diagram



Absolute Maximum Ratings(Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P _{PP}	500	Watts
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 15	KV
ESD per IEC 61000-4-2 (Contact)		± 8	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

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

Part Number	V _{RWM} (V)	V _{BR} (V)	I _T (mA)	V _C @1A	V _C		I _R μA (Max)	C (pF) (TYP)
					(Max)	(@A)		
ESDSRDA3.3-4	3.3	4	1	6.5	15.5	27	40	5

Characteristics Curves

Figure 1- Power Derating Curve

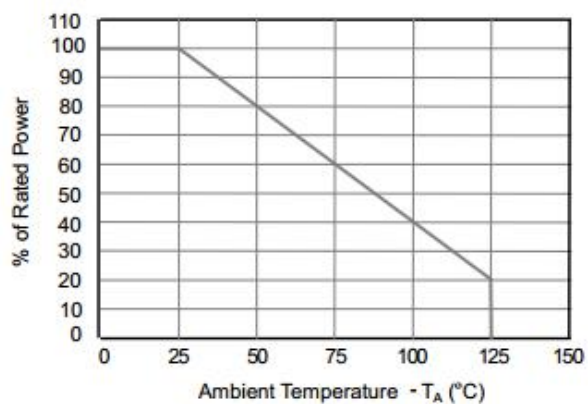


Figure 2- ESD Pulse Waveform
(according to IEC 61000-4-2)

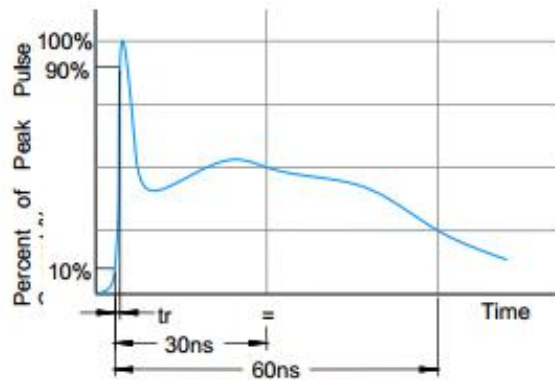
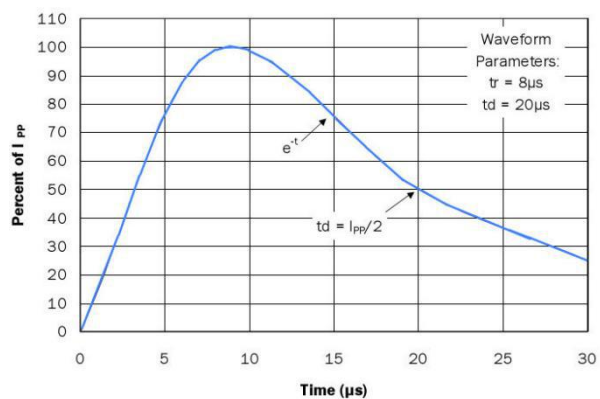
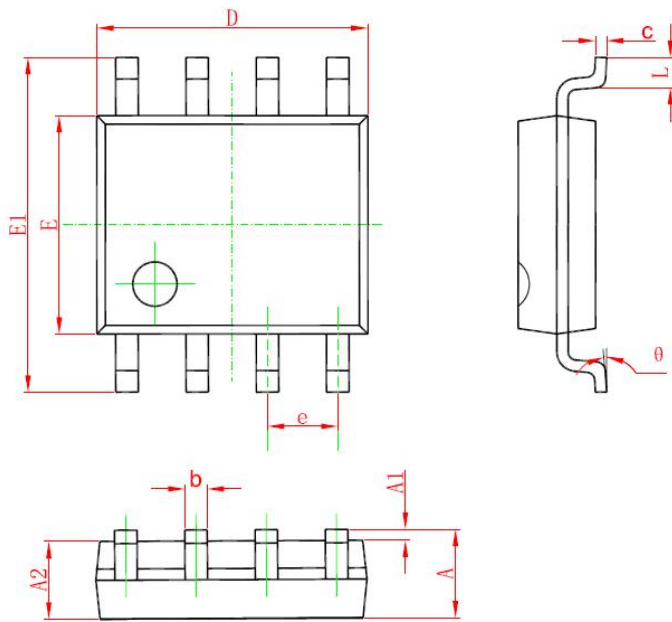


Figure3- 8/20 μ s Pulse Waveform



PACKAGE OUTLINE DIMENSIONS in millimeters (inches) :SOP-8



Symbo	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	1.350	1.750	0.053	0.069
A1	0.100	0.250	0.004	0.010
A2	1.350	1.550	0.053	0.061
b	0.330	0.510	0.013	0.020
c	0.170	0.250	0.006	0.010
D	4.700	5.100	0.185	0.200
E	3.800	4.000	0.150	0.157
E1	5.800	6.200	0.228	0.244
e	1.270(BSC)		0.050(BSC)	
L	0.400	1.270	0.016	0.050
θ	0°	8°	0°	8°

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.