

Description

This is working voltage 5V, Bi-directional, ESD protection diode in a DFN1006 package.

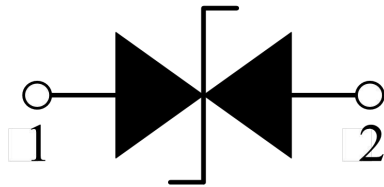
Applications

- Cellular phones
- Portable devices
- Digital cameras
- Power supplies

Features

- Capacitance: 3.5pF(typ.)
- Reverse Working Voltage: 5V
- IEC 61000-4-2 (ESD Air): $\pm 25\text{KV}$
- IEC 61000-4-2 (ESD Contact): $\pm 20\text{KV}$
- IEC 61000-4-5 (Lightning 8/20 μs): 2.5A

Schematic Diagram & Pinning



Marking

See Marking Instructions.

Limiting Values (TA = 25 ° C, unless otherwise specified)

Symbol	Parameter	Conditions	Min	Max	Unit
VESD	Electrostatic Discharge Voltage	IEC 61000-4-2; Contact Discharge	-	±20	kV
		IEC 61000-4-2; Air Discharge	-	±25	kV
PPP	Peak Pulse Power	tP = 8/20 μs	-	40	W
IPPM	Rated Peak Pulse Current	tP = 8/20 μs	-	2.5	A
TA	Ambient Temperature Range	-	-55	150	°C
Tstg	Storage Temperature Range	-	-55	150	°C

Electrical Characteristics (Ta=25°C)

Symbol	Parameter	Conditions	Min	Typ.	Max	Unit
V _{RWM}	Reverse Working Voltage	T _A = 25 °C	-	-	5.0	V
V _{BR}	Breakdown Voltage	I _R = 1mA; T _A = 25 °C	5.6	-	9.0	V
I _R	Reverse Leakage Current	V _{RWM} = 5V; T _A = 25 °C	-	-	100	nA
V _C	Clamping Voltage	I _{PP} = 1A, t _P = 8/20μs	-	-	13	V
		I _{PP} = 2.5A, t _P = 8/20μs	-	-	16	V
C _J	Junction Capacitance	V _R = 0V, f = 1 MHz	-	3.5	4.0	pF

Typical Characteristics

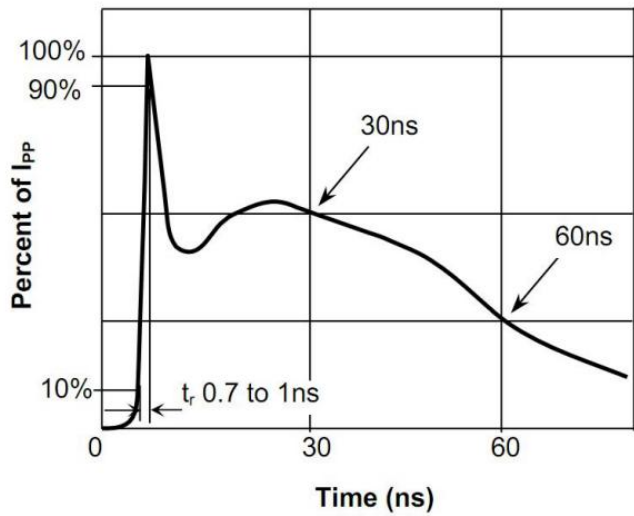


Fig.1 Pulse Waveform-ESD (IEC61000-4-2)

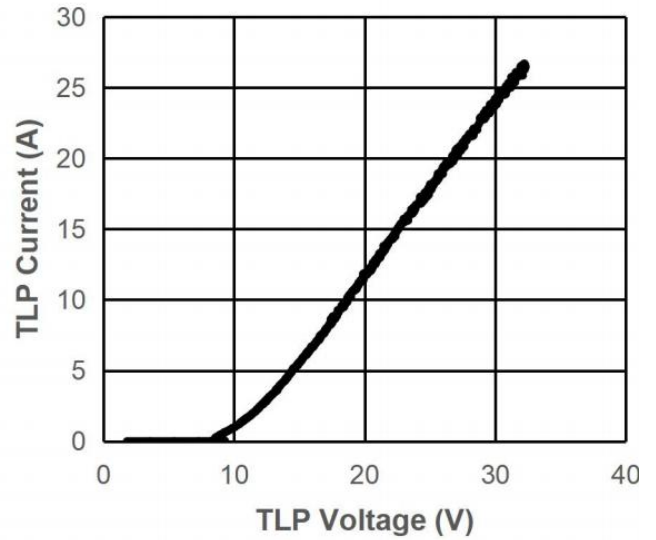


Fig.2 Transmission Line Pulse (TLP)

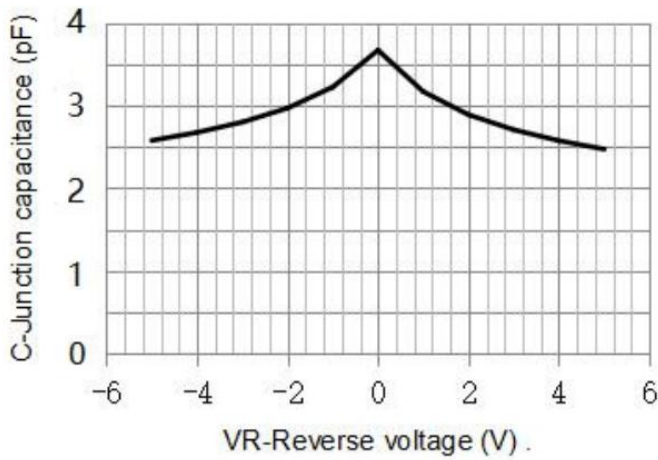


Fig.3 Capacitance vs. Reverse Voltage

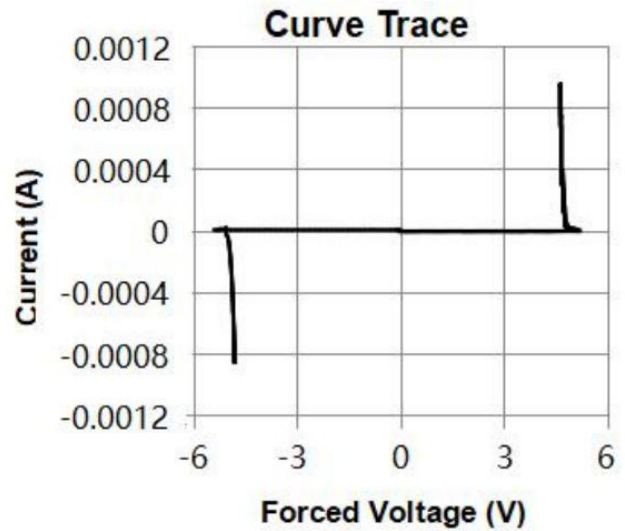
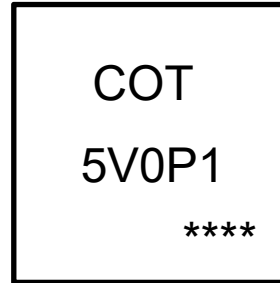


Fig.4 IV Curve (Forward Voltage)

Marking Information

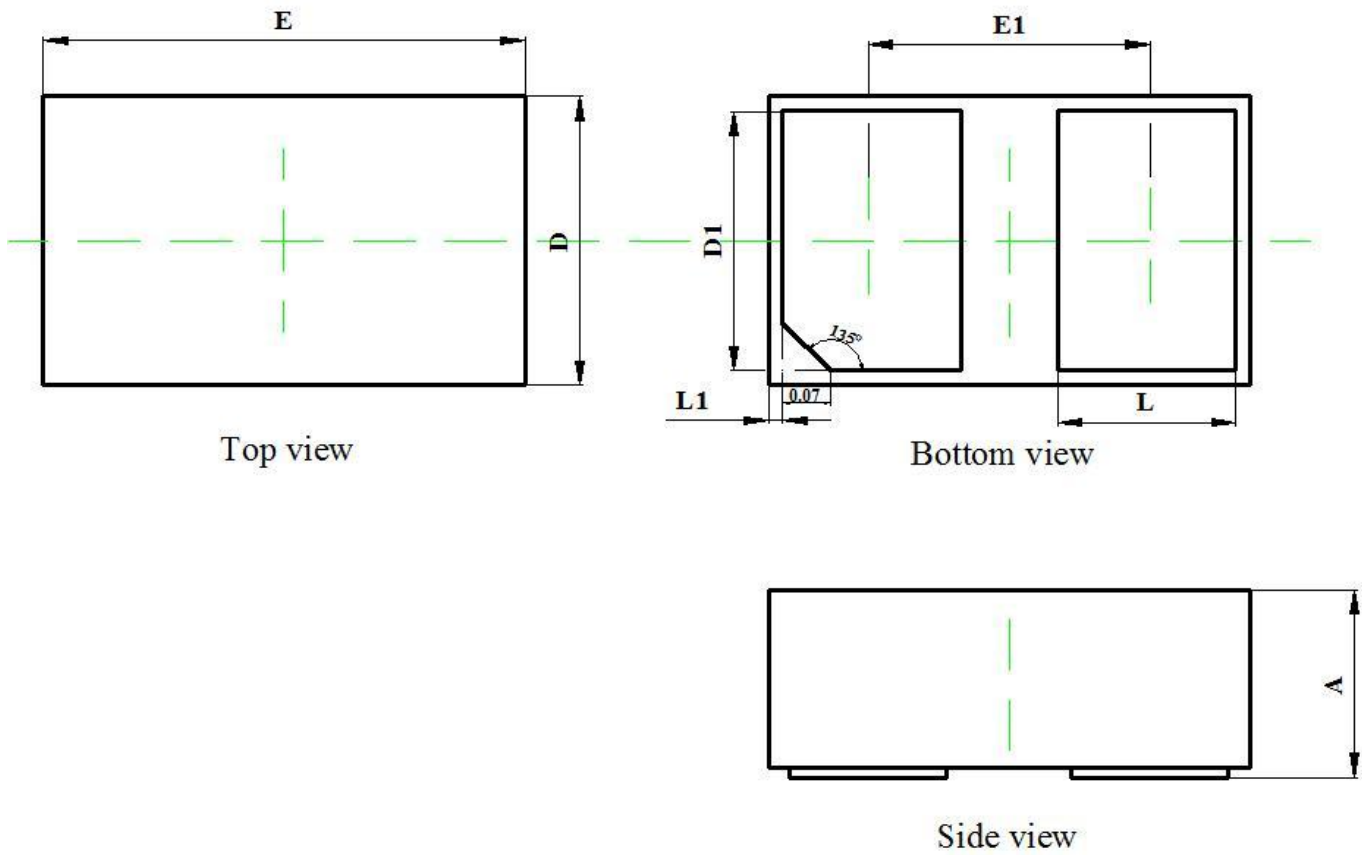


- Note:
- COT: Company Logo
 - 5V0P1: Product Type.
 - ****: Lot No. Code, code change with Lot No.

Order Information

Type	Package	Size (mm)	Delivery Form	Delivery Quantity
CTESD5V0P1B2ZP	DFN1006	1.00x0.60x0.40	7" T&R	10,000

Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.350	0.450	0.014	0.018
D	0.550	0.650	0.022	0.026
E	0.950	1.050	0.037	0.041
D1	0.420	0.520	0.017	0.020
E1	0.550	0.650	0.022	0.026
L	0.270	0.370	0.011	0.015
L1	0.000	0.100	0.000	0.004