

ULTRA LOW CAPACITANCE BIDIRECTIONAL TVS DIODE

Features:

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

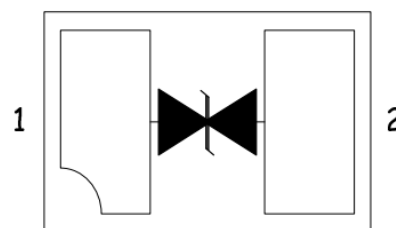
DFN1006



Applications:

- USB 2.0 power and data line
- Set-top box and digital TV
- Digital video interface (DVI)
- Notebook Computers
- SIM Ports
- 10/100 Ethernet

Pin Configuration



Mechanical Characteristics

- Package: DFN1006
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 10,000pcs
- Reel Size: 7 inch

Absolute Maximum Ratings (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P _{pp}	110	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 24	Kv
ESD per IEC 61000-4-2 (Contact)		± 20	
Operating Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STJ}	-55 to +150	°C

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

Part Number	Device Marking	V _{RWM} (V)	V _{BR} (V)	I _T (mA)	V _C @1A	V _C		I _R μA (Max)	C (Pf) (Typ.)
						(Max)	(@A)		
KWULC3311CDN	3B	3.3	5.3	1	11	22	5	0.1	0.3

Characteristic Curves

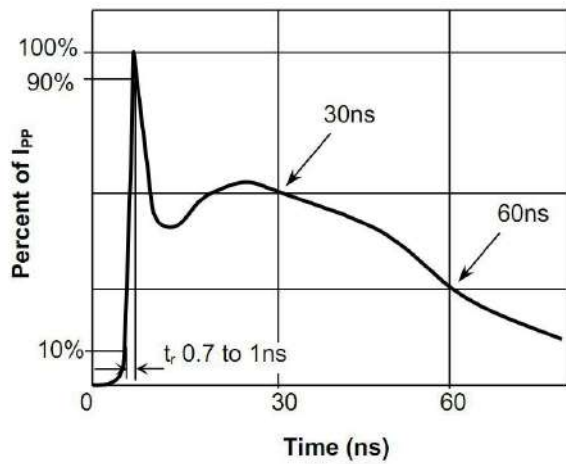


Fig.1 Pulse Waveform-ESD (IEC61000-4-2)

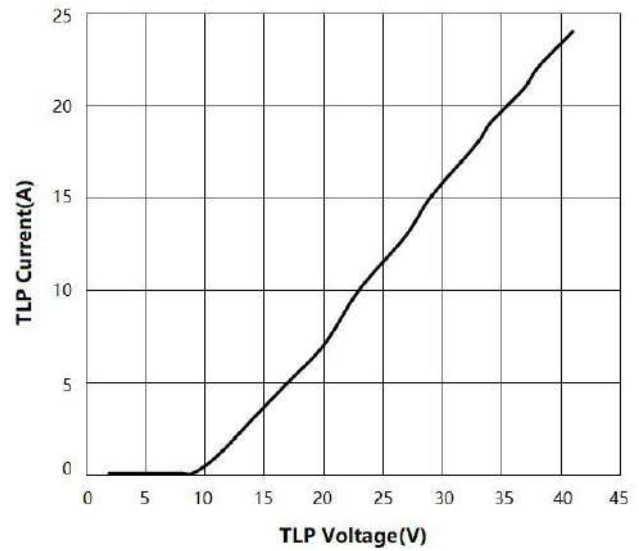


Fig.2 Transmission Line Pulse (TLP)

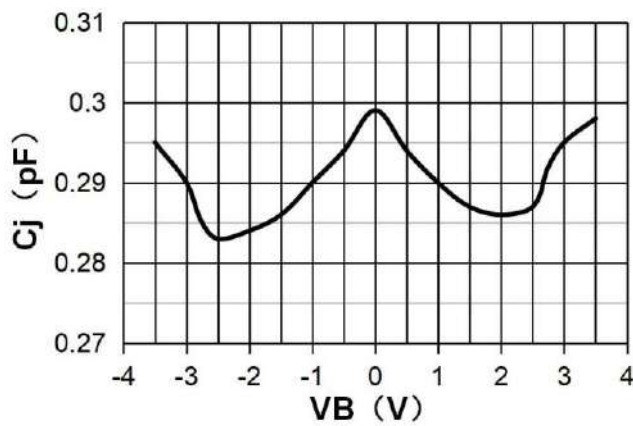


Fig.3 Capacitance vs. Reverse Voltage

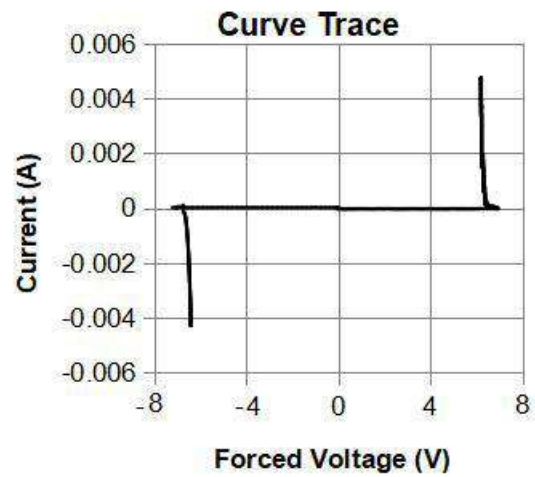
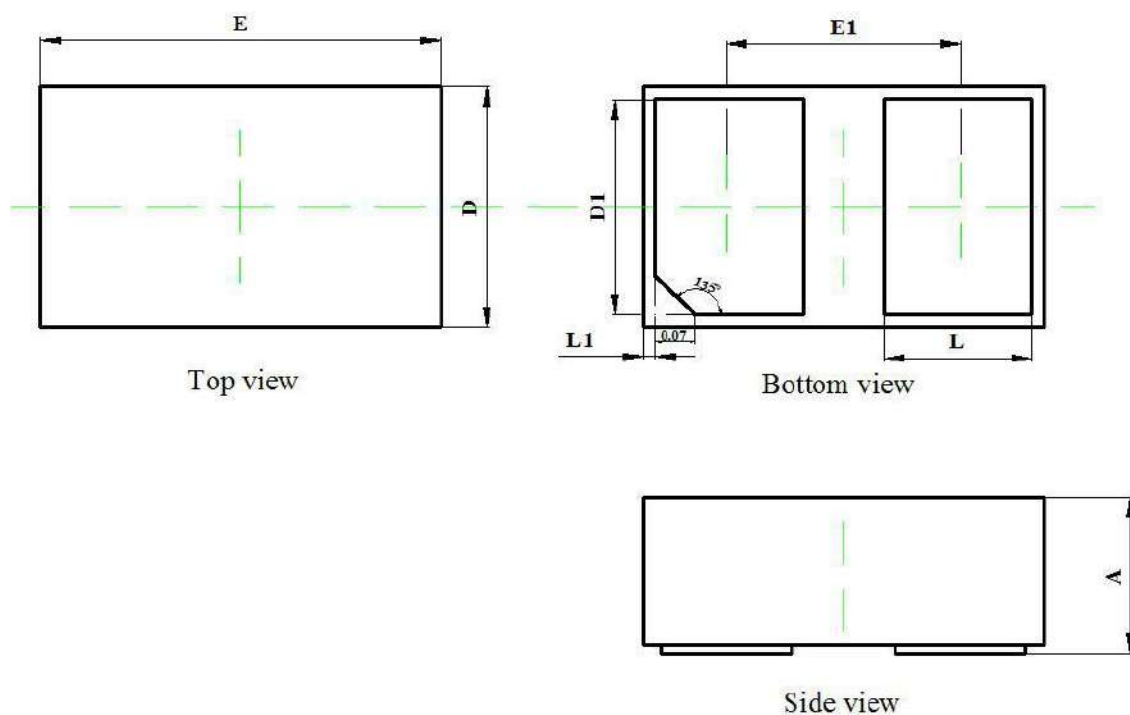


Fig.4 IV Curve (Forward Voltage)

DFN1006 PACKAGE OUTLINE & DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.320	0.420	0.013	0.017
D	0.550	0.650	0.022	0.026
E	0.950	1.050	0.037	0.041
D1	0.450	0.550	0.018	0.022
E1	0.550	0.650	0.022	0.026
L	0.280	0.380	0.011	0.015
L1	0.000	0.100	0.000	0.004