V_{WM} = 5V, 2pF ESD Protection Diode

FEATURES

- Meet IEC61000-4-2(ESD) ±15kV(air) , ±8kV(contact)
- Working Voltage: 5V
- Moisture sensitivity level: level 1, per J-STD-020
- RoHS Compliant
- Halogen-free according to IEC 61249-2-21

APPLICATIONS

- High Speed Data Lines: USB 2.0 / VGA/ DVI /SDI
- Notebooks, Desktops and Servers
- Touch Panel

MECHANICAL DATA

- Case: DFN1006L
- Molding compound meets UL 94V-0 flammability rating
- Terminal: Matte tin plated leads, solderable per J-STD-002
- Meet JESD 201 class 1A whisker test
- Polarity: As marked
- Weight: 0.742mg (approximately)

KEY PARAMETERS		
PARAMETER	**VALUE**	**UNIT**
P_{PPSM}	100	W
I_{PP}	3	A
V_{WM}	5	V
V_{BR} at I_R = 1 mA	6	V
V_C at I_{PP} = 3 A	15	V
Package	DFN1006L	
Configuration	Single die	

Pb-Free RoHS COMPLIANT HALOGEN FREE

DFN1006L

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)			
PARAMETER	**SYMBOL**	**TESD5V0L1UC**	**UNIT**
Marking code on the device		BH	
Rated random recurring peak Impulse power dissipation (tp = 8/20μs waveform)	P_{PPSM}	100	W
Peak impulse current (tp = 8/20μs waveform)	I_{PP}	3	A
ESD per IEC 61000-4-2 (Air)	V_{ESD}	±15	kV
ESD per IEC 61000-4-2 (Contact)		±8	kV
Junction temperature range	T_J	-55 to +150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

ELECTRICAL SPECIFICATIONS (T_A = 25°C unless otherwise noted)						
PARAMETER	**CONDITIONS**	**SYMBOL**	**MIN**	**TYP**	**MAX**	**UNIT**
Reverse breakdown voltage(1)	I_R = 1 mA	V_{BR}	6	-	9.8	V
Rated working standoff voltage		V_{WM}	-	-	5	V
Reverse current(1)	V_R = 5 V	I_R	-	-	0.1	μA
Clamping voltage(2)	I_{PP} = 1 A	V_C	-	-	10	V
Clamping voltage(2)	I_{PP} = 3 A		-	-	15	V
Junction capacitance	f = 1MHz, V_R = 0V	C_J	-	-	2	pF

Notes:

1. Pulse test with PW = 30ms
2. tp = 8/20μs waveform

ORDERING INFORMATION		
ORDERING CODE	**PACKAGE**	**PACKING**
TESD5V0L1UC RJG	DFN1006L	10K / 7" Reel

CHARACTERISTICS CURVES

(T_A = 25°C unless otherwise noted)

Fig.1 8/20μs pulse waveform according to IEC 61000-4-5

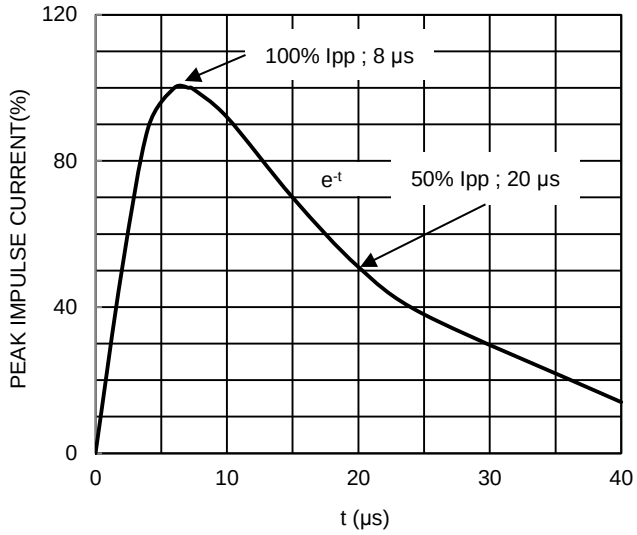


Fig.2 ESD pulse waveform according to IEC 61000-4-2

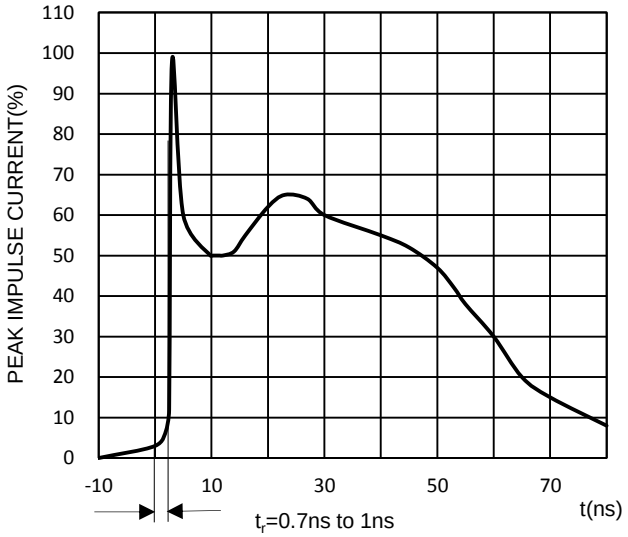


Fig.3 TLP I-V Curve

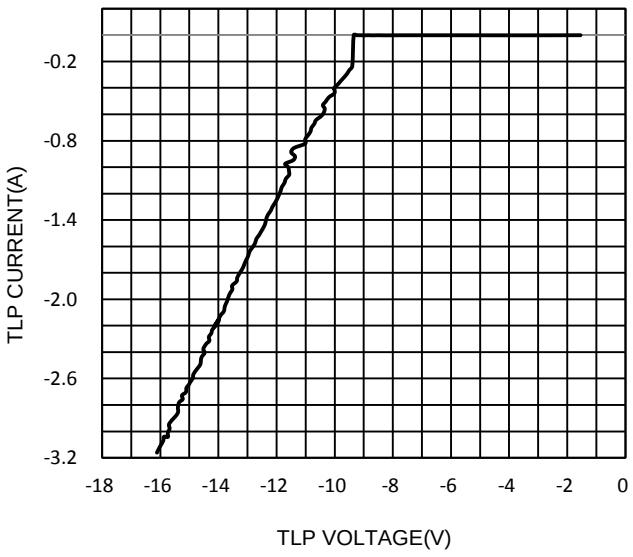
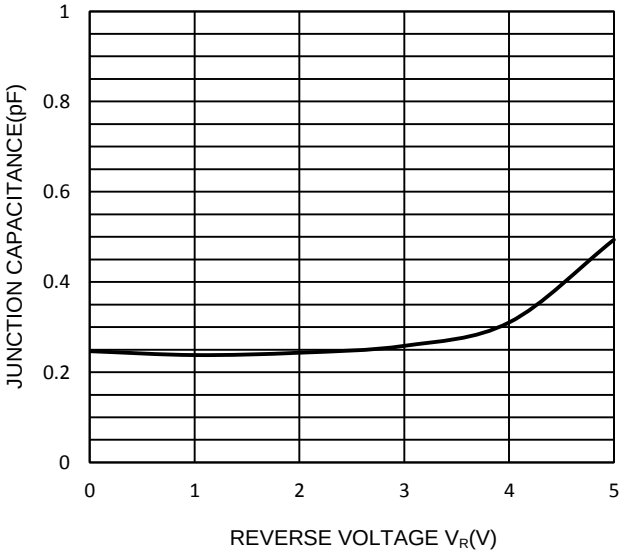
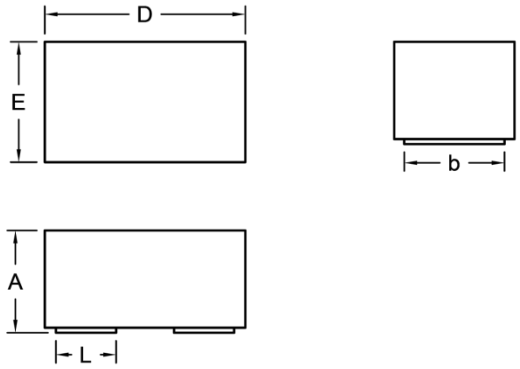


Fig.4 Typical Junction Capacitance



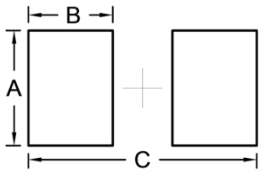
PACKAGE OUTLINE DIMENSION

DFN1006L



DIM.	Unit (mm)		Unit (inch)	
	Min.	Max.	Min.	Max.
A	0.46	0.51	0.018	0.020
b	0.50 (TYP.)		0.020 (TYP.)	
D	0.95	1.05	0.037	0.041
E	0.55	0.65	0.022	0.026
L	0.30 (TYP.)		0.012 (TYP.)	

SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
A	0.56	0.022
B	0.41	0.016
C	1.11	0.044

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