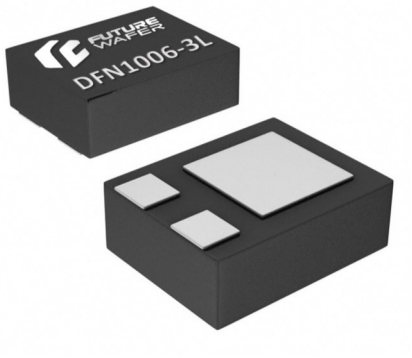
ESD3LC

Ultra low capacitance ESD Protection

Applications

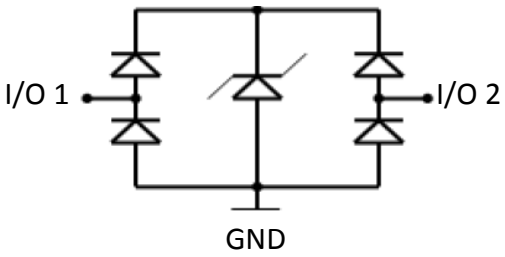
- Lan equipment
- Video
- DVI
- High Speed Data Line
- Ethernet
- USB 3.0/3.1 Data line Protection



DFN1006-3L

Feature

- With TVS Diode
- ESD Protection:Level 4
- Low clamping voltage
- 100Watts peak pulse power per line(tp=8/20uS)
- Ultra low capacitance:0.4pf max.(pin1 to pin2.)
- Protection I/O port



IEC Compatibility

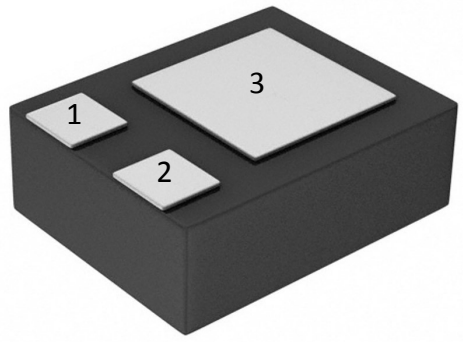
- EN61000-4
- 61000-4-2(ESD):Level 4,Contact:±8kv,Air::±15kv
- 61000-4-4(EFT):40A-5/50ns
- 61000-4-5(Surge):4A-8/20us

Mechanical Characteristics

- Molded JEDEC DFN1006-3L package
- Packing:Tape and Reel
- Flammability rating UL 94V-0
- Halogen Free

Device Characteristics

Maximum Ratings@25 unless otherwise specified			
Parameter	Symbol	Value	Units
Peak pulse power (tp=8/20us)	P_{PP}	100	Watts
Operating Temperature	T_J	-55~150	℃
Storage Temperature	T_{STG}	-55~150	℃

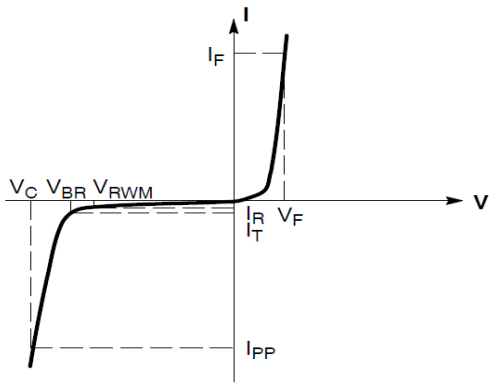


Pin	Identification
1	I/O 1
2	I/O 2
3	GND

Electrical Characteristics

Parameter	Symbol	Condition	min	max	Units
Reverse Stand-off Voltage	V_{RWM}	Pin 1,2 to Pin 3		5	V
Reverse Breakdown Voltage	V_{BR}	I_Z=1mA,Pin 1-2 to Pin 3	6		V
Reverse Leakage Current	$I_{R(max)}$	@V_{RWM}		1	uA
Forward Voltage	$V_{F(max)}$	I_F=15mA, Pin 3 to Pin1,2		1.15	V
Clamping Voltage	V_C	I_{PP}=1A tp=8/20us		10	V
Peak Pulse Current	I_{PP}	tp=8/20us		4	A
Junction Capacitance	$C_{I/O}$	Pin 1 to Pin 2, Vdc=0V,f=1MHZ		0.4	pf
		Pin 1,2 to Pin 3, Vdc=0V,f=1MHZ		0.8	pf

Symbol	Parameter
V_{RWM}	Nominal Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Reverse Breakdown Voltage @ I_T
I_T	Test Current for Reverse Breakdown
V_C	Clamping Voltage @ I_{PP}
I_{PP}	Maximum Peak Pulse Current
C_{ESD}	Parasitic Capacitance
V_R	Reverse Voltage
f	Small Signal Frequency



Uni–Directional TVS

Rating and characteristic curve

FIGURE 1
Non-repetitive Peak pulse power V.S pulse time

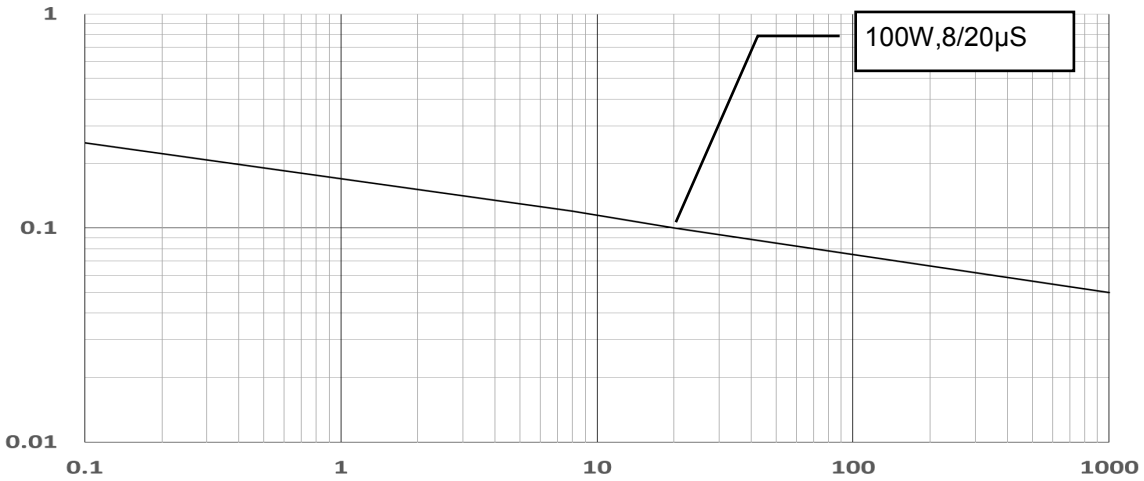


FIGURE 2
Power Derating Curve

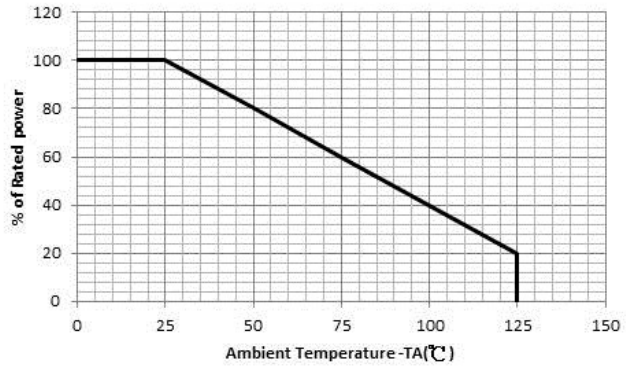


FIGURE 3
Pulse Wave Form

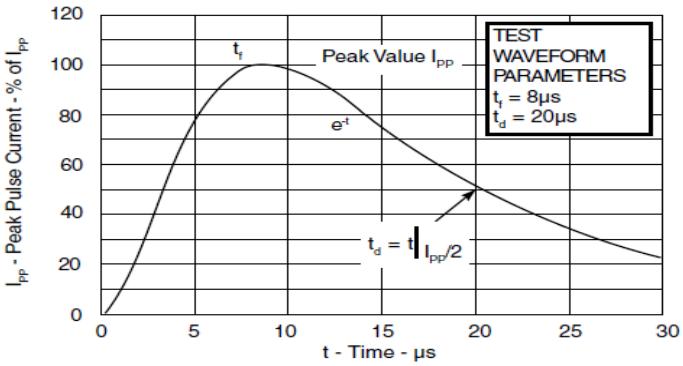


FIGURE 4
Clamping Voltage VC Map

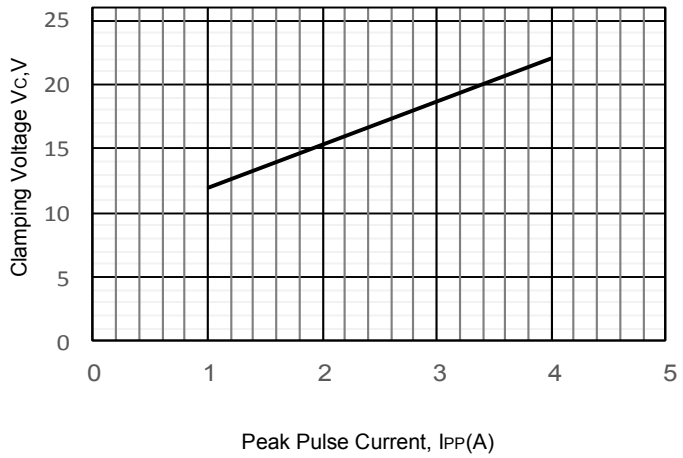
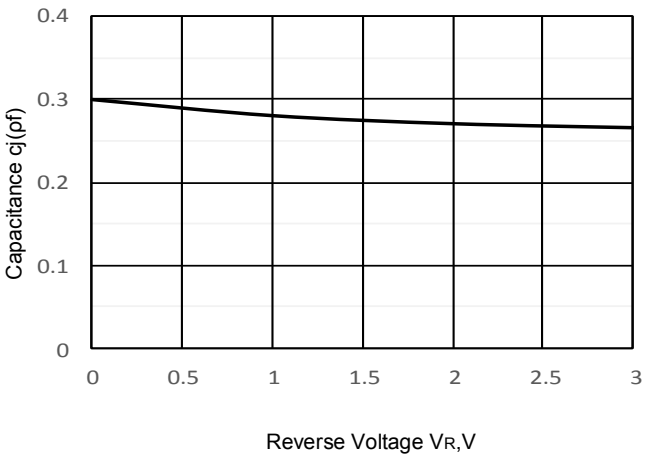
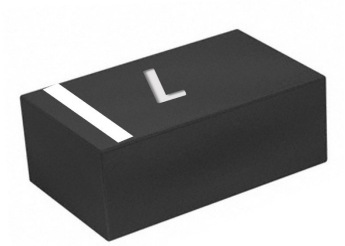


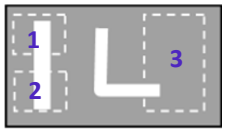
FIGURE 5
Normalized Capacitance vs.Reverse Voltage



Ordering information

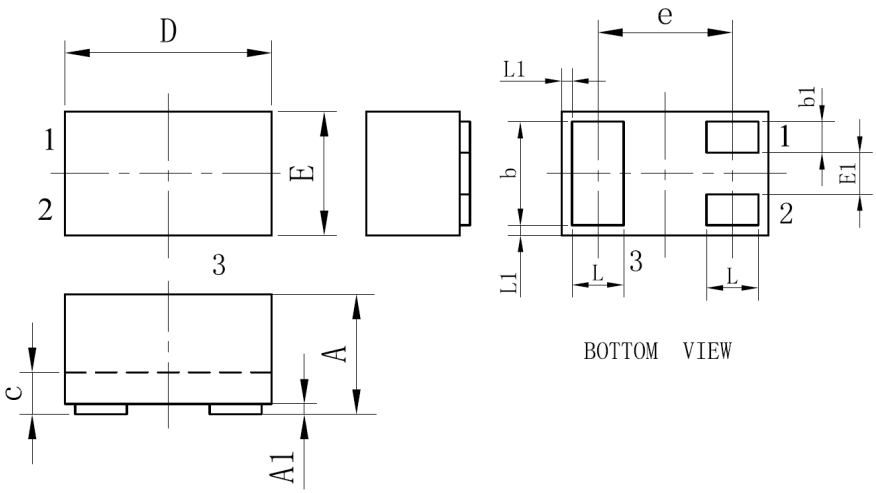
Marking codes





Part No.	Marking Code
ESD3LC	L
Quantity	10,000pcs

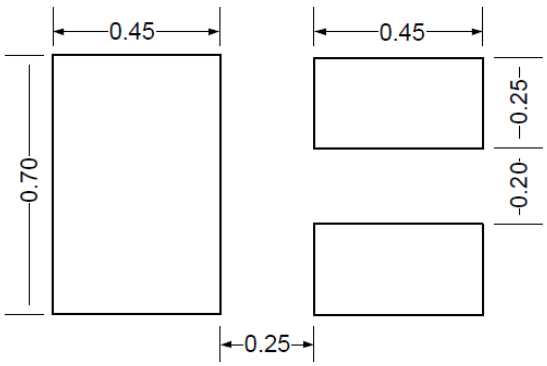
Package information



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.45	0.50	0.55
A1	0.00	0.02	0.05
b	0.45	0.50	0.55
b1	0.10	0.15	0.20
c	0.12	0.15	0.18
D	0.95	1.00	1.05
e	0.65BSC		
E	0.55	0.60	0.65
E1	0.15	0.20	0.25
L	0.20	0.25	0.30
L1	0.05REF		

單位: mm

Pad Layout



Futurewafer Technology co., Ltd 台灣未來芯航電股份有限公司
Tel ：+886-3-3573583 / Tel ：+886-3-3574065
Futurewafer.com.tw
桃園市桃園區中正路 987 巷 50 弄 2 號