

Applications

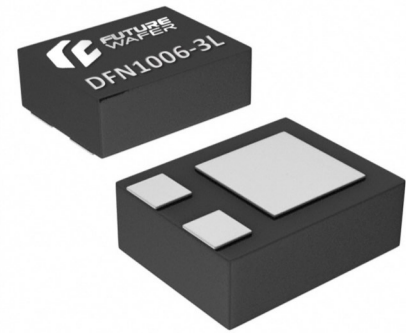
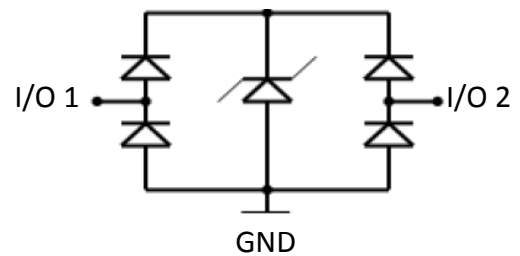
- Lan equipment
- Video
- DVI
- High Speed Data Line
- Ethernet
- USB 3.0/3.1 Data line Protection

Feature

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

IEC Compatibility

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

Device Characteristics

DFN1006-3L

Mechanical Characteristics

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

Maximum Ratings@25 unless otherwise specified

Parameter	Symbol	Value	Units
Peak pulse power ($t_p=8/20\mu s$)	PPP	100	Watts
Operating Temperature	TJ	-55~150	°C
Storage Temperature	TSTG	-55~150	°C

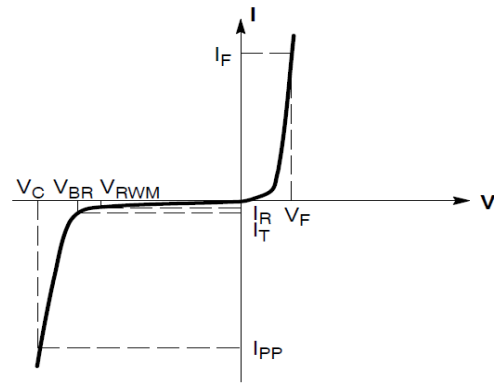


Pin	Identification
1	I/O 1
2	I/O 2
3	GND

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	μA
Forward Voltage	$V_{F(max)}$	$I_F=15mA$, Pin 3 to Pin1,2		1.15	V
Clamping Voltage	V_C	$I_{PP}=1A$ $t_p=8/20\mu s$		10	V
Peak Pulse Current	I_{PP}	$t_p=8/20\mu s$		4	A
Junction Capacitance	$C_{I/O}$	Pin 1 to Pin 2, $V_{dc}=0V, f=1MHz$		0.4	pf
		Pin 1,2 to Pin 3, $V_{dc}=0V, f=1MHz$		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

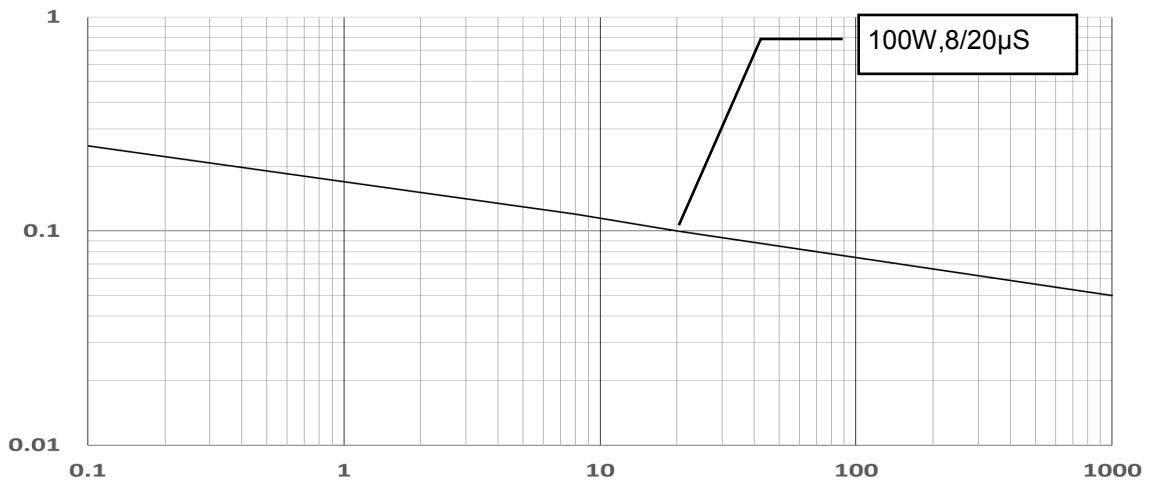


FIGURE 2
Power Derating Curve

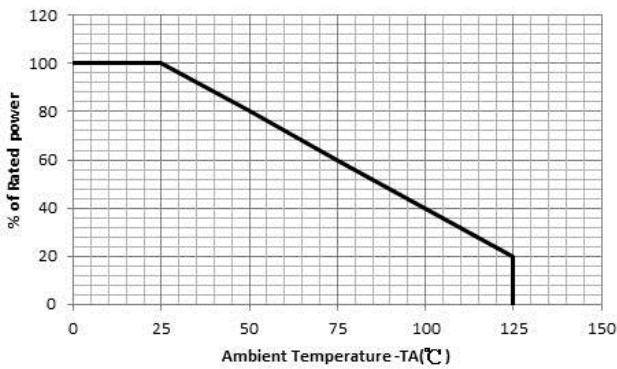


FIGURE 3
Pulse Wave Form

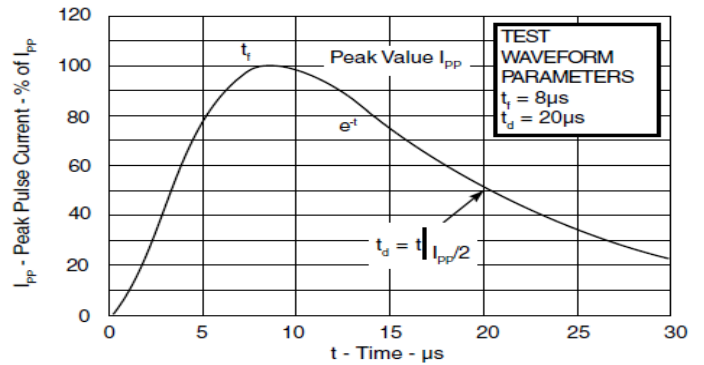


FIGURE 4
Clamping Voltage VC Map

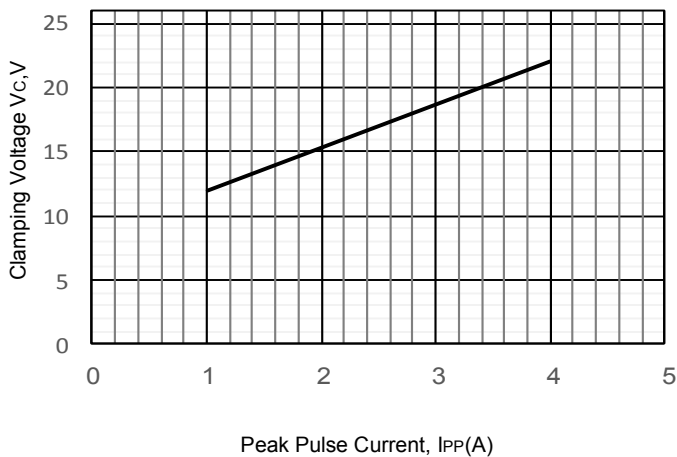
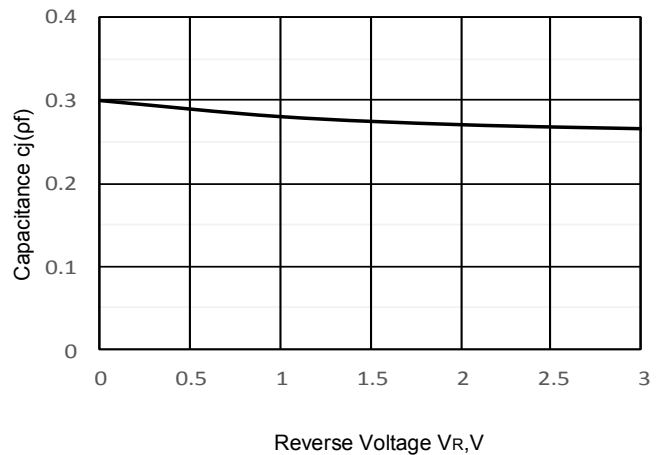
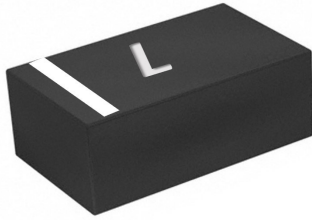


FIGURE 5
Normalized Capacitance vs.Reverse Voltage



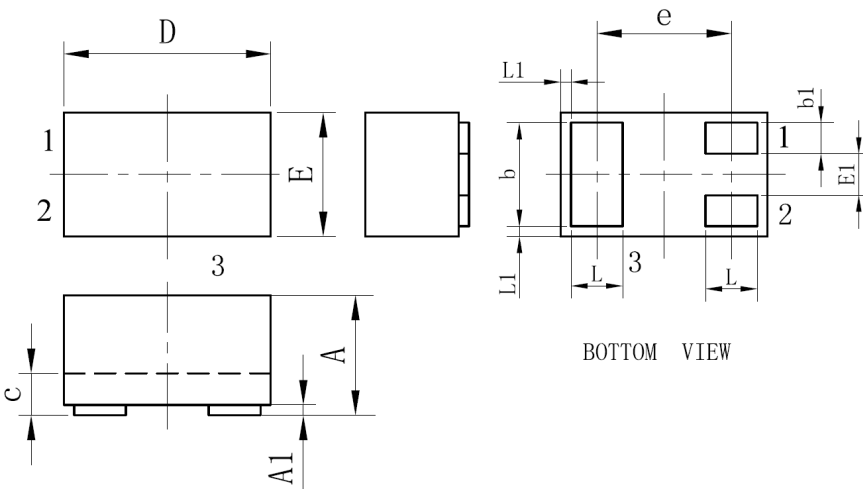
Ordering information

Marking codes



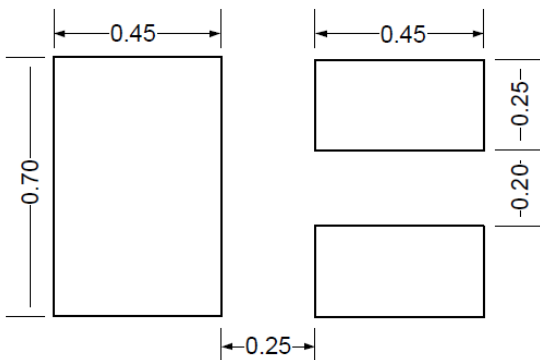
Part No.	Marking Code
ESD3LC	L
Quantity	10,000pcs

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		

Pad Layout



單位: mm



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