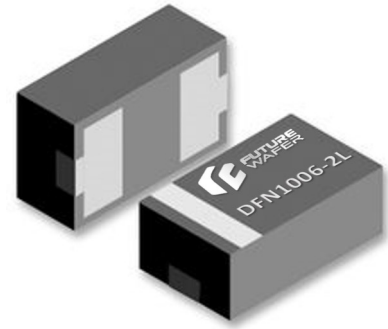


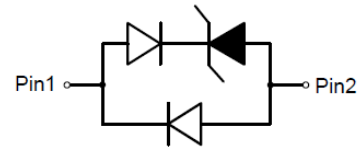
Extremely Low Capacitance TVS Diode

Applications

- Personal Digital Assistance
- Wireless System
- HDMI 1.4
- High Speed Data Line
- Ethernet
- USB 3.1 Power and Data line Protection
- Display Port 1.2
- e SATA 3.0



DFN1006-2L



Feature

- With TVS Diode
- ESD Protection:Level 4
- Low Clamping Voltage@IPP=4A,VC<15V
- 60 Watts peak pulse power per line(tp=8/20uS)
- Ultra low capacitance:0.5pf max.(Pin 1-Pin 2)

IEC Compatibility

- EN61000-4
- 61000-4-2(ESD):Level 4,Contact:>±20kv,Air::>±25kv
- 61000-4-4(EFT):40A-5/50ns
- 61000-4-5(Surge):4A,8/20us

Mechanical Characteristics

- Molded JEDEC DFN1006-2L package
- Packaging: Tape and Reel
- Flammability rating UL 94V-0
- Halogen Free

Device Characteristics

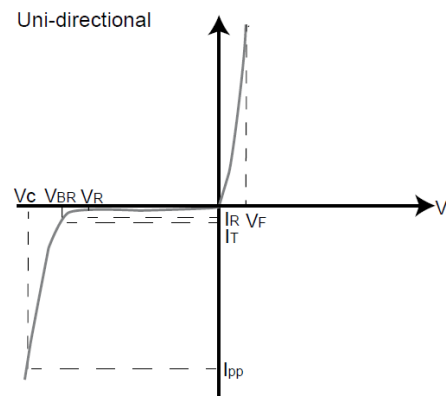
Maximum Ratings@25 unless otherwise specified			
Parameter	Symbol	Value	Units
Peak pulse power (tp=8/20us)	PPP	60	Watts
Operating Temperature	TJ	-55~150	°C
Storage Temperature	TSTG	-55~150	°C

Electrical Characteristics

Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_z=1mA$, Pin 1 to 2	6.1		8.5	V
Reverse Leakage Current	$I_R@V_R=5V$	Pin 1 to Pin 2			50	nA
Clamping Voltage	V_C	$I_{PP}=1A$, $t_p=8/20\mu s$ $I_{PP}=4A$, $t_p=8/20\mu s$			10 15	V
Junction Capacitance	C I/O-GND	$V_{dc}=0V$, $f=1MHz$		0.45	0.5	pf

Electrical Characteristics $T=(25^{\circ}C)$

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



Rating and characteristic curve

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

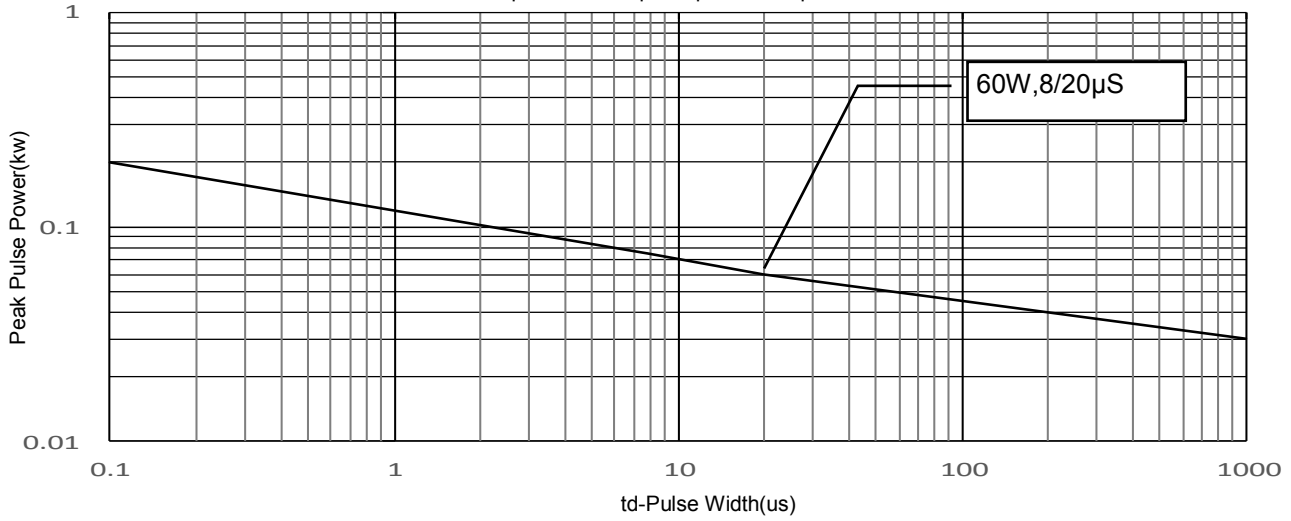


FIGURE 2
Breakdown Voltage VB Map Pin to Pin.

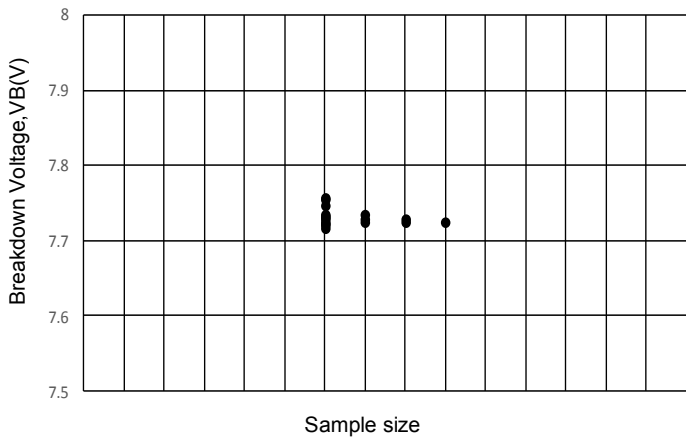


FIGURE 3
Power Derating Curve

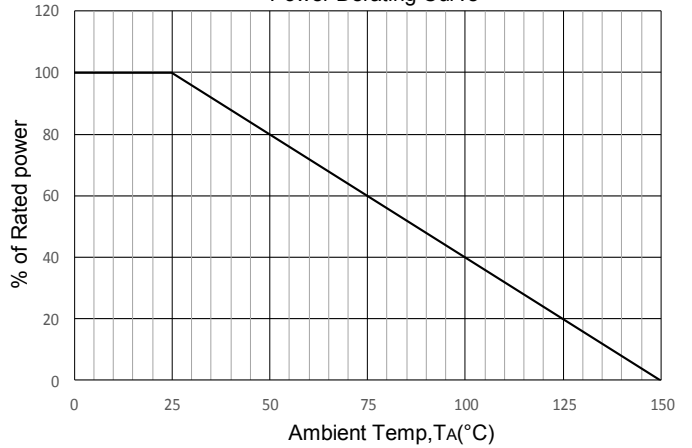


FIGURE 4
Normalized Capacitance vs. Reverse Voltage

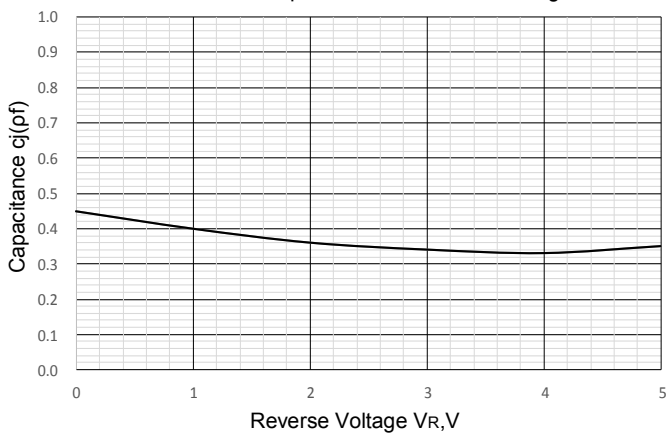
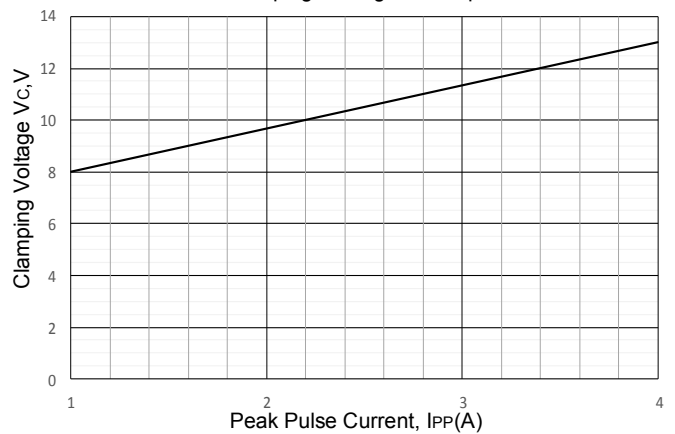


FIGURE 5
Clamping Voltage VC Map



Rating and characteristic curve

FIGURE 6
TLP I-V Curve

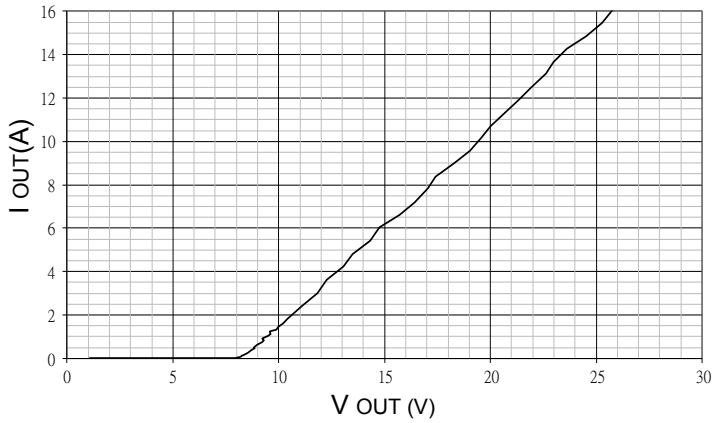
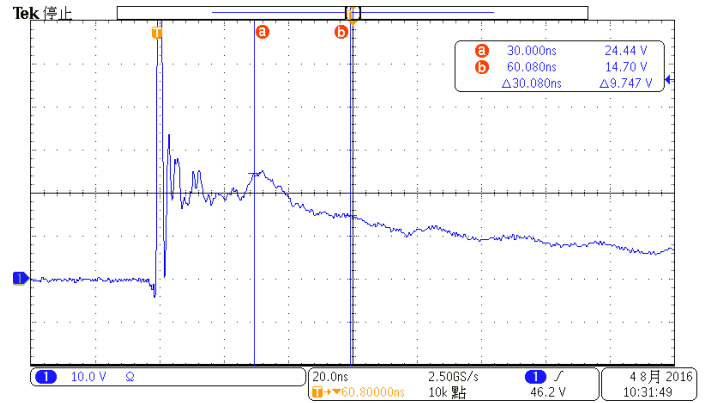
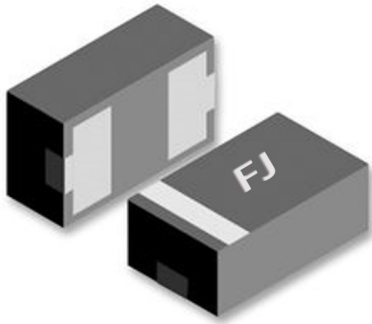


FIGURE 7
ESD Test contact(8kv)



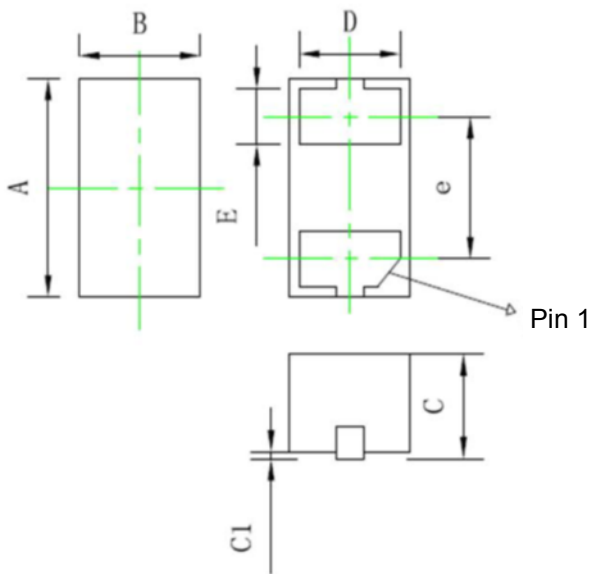
Ordering information

Marking codes



Part No.	Marking
FESD05LCDS	FJ
Quantity	10,000pcs/7" Reel

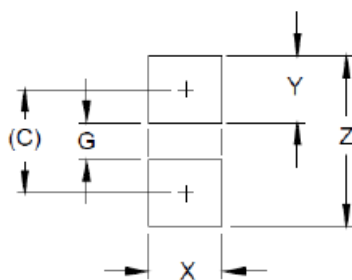
Package information



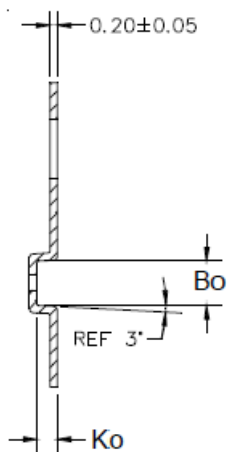
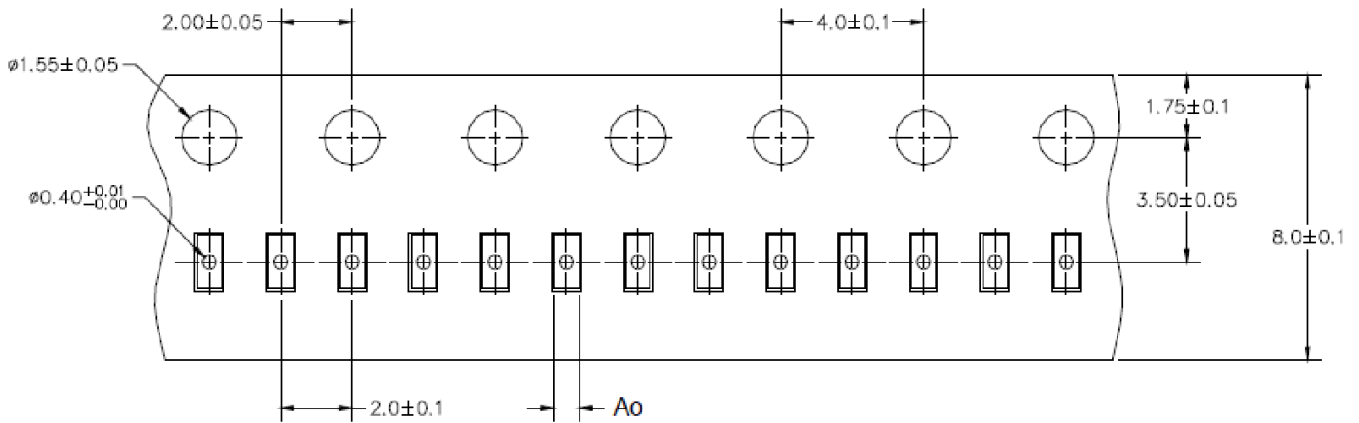
SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.95	1.00	1.05
B	0.55	0.60	0.65
C	0.40	0.45	0.50
C1			0.05
D	0.45	0.50	0.55
e	0.65 BSC		
E	0.20	0.25	0.30

Unit:mm

Pad Layout



DIMENSIONS		
DIM	INCHES	MILLIMETERS
C	(.033)	(0.85)
G	.012	0.30
X	.024	0.60
Y	.022	0.55
Z	.055	1.40

Tape & Reel information


A0	B0	K0
0.69 +/-0.10 mm	1.19 +/-0.10 mm	0.66 +/-0.10 mm



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