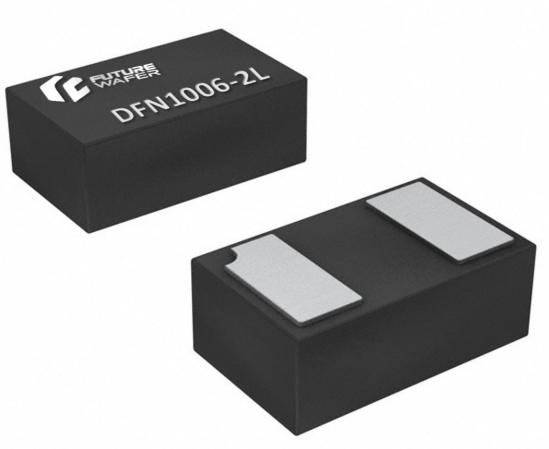
FESD05BLCIS

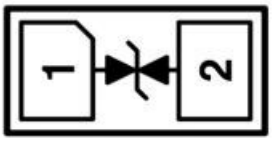
Extremely Low Capacitance TVS Diode

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



Feature

- With TVS Diode
- ESD Protection:Level 4
- Low Clamping Voltage@I_{PP}=4A,V_C<15V
- 60 Watts peak pulse power per line(tp=8/20uS)
- Ultra low capacitance:0.3pf max.(Any I/O to I/O .)

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

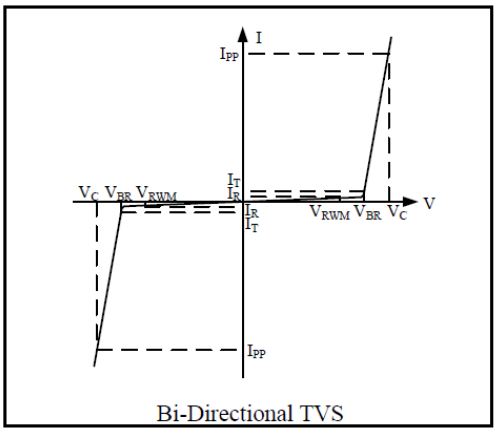
Device Characteristics

Maximum Ratings@25 unless otherwise specified			
Parameter	**Symbol**	**Value**	**Units**
Peak pulse power (tp=8/20us) see fig 1.	**P_{PP}**	**60**	**Watts**
Operating Temperature	**T_J**	**-55~150**	**℃**
Storage Temperature	**T_{STG}**	**-55~150**	**℃**

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 or Pin 2 to 1	6.1		8.5	V
Reverse Leakage Current	I_R@V_R=5V	Pin to Pin			50	nA
Clamping Voltage	V_C	I_{PP}=1A tp=8/20us I_{PP}=4A,tp=8/20us			10 15	V
Junction Capacitance	$C_{I/O-I/O}$	Vdc=0V,f=1MHZ		0.25	0.3	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



Bi-Directional TVS

Rating and characteristic curve

FIGURE 1

Non-repetitive Peak pulse power V.S pulse time

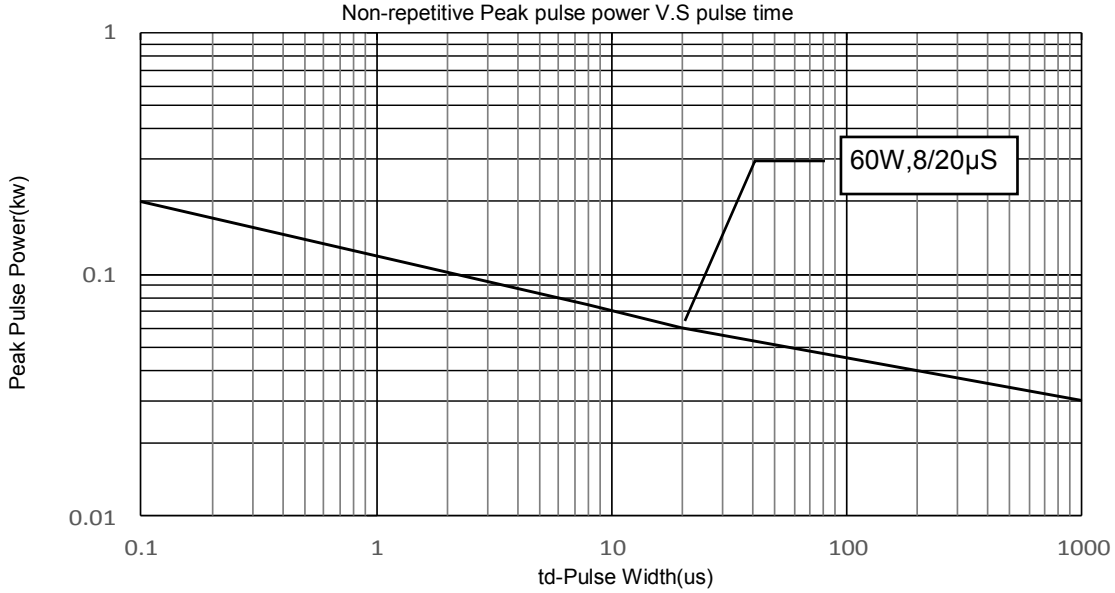


FIGURE 2

VC&IPP Drawing(Pin to Pin)

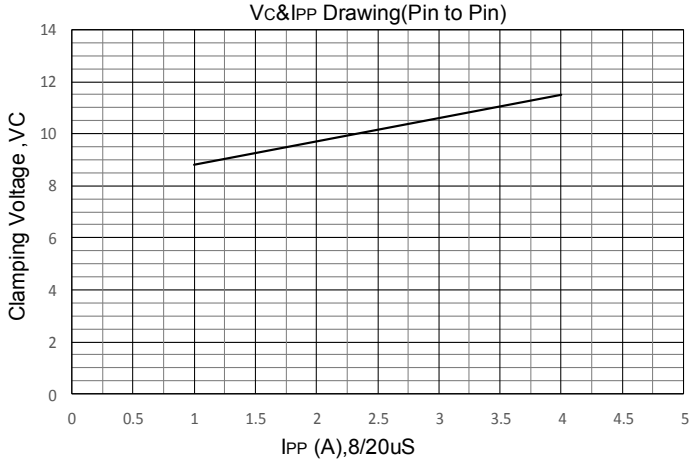


FIGURE 3

Power Derating Curve

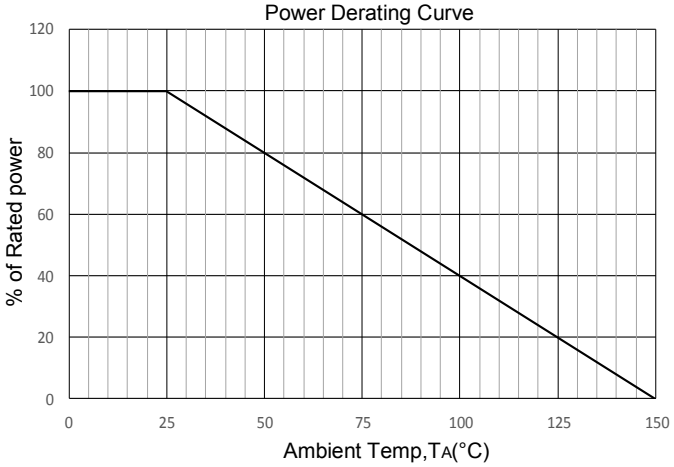


FIGURE 4

Normalized Capacitance vs.Reverse Voltage

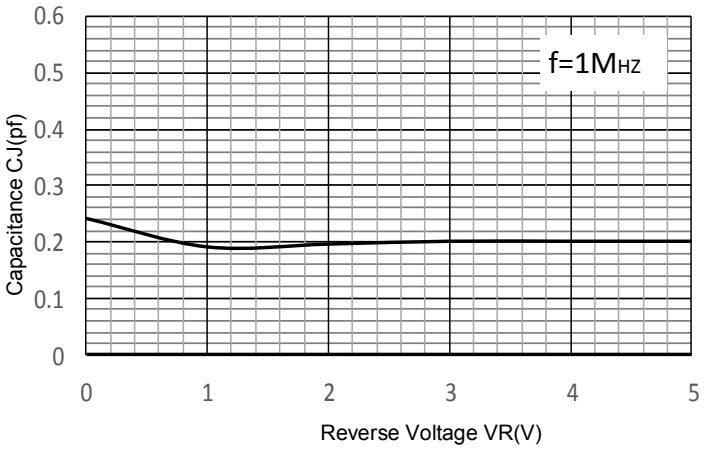
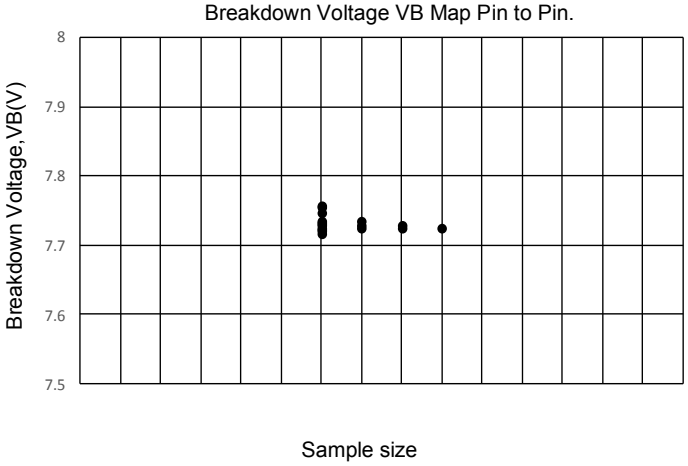


FIGURE 5

Breakdown Voltage VB Map Pin to Pin.



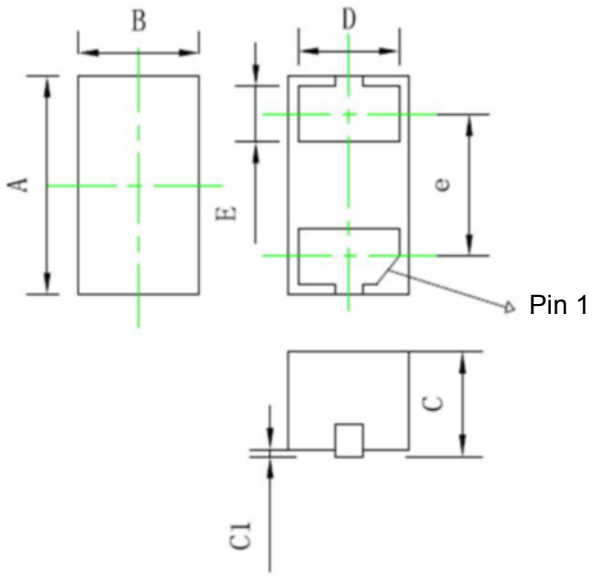
Ordering information

Marking codes



Part No.	Marking
FESD05BLCIS	FZ
Quantity	10,000pcs/2mm Pitch Reel

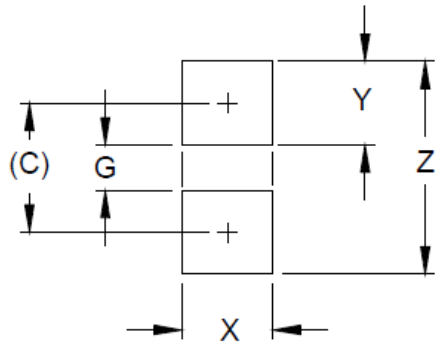
Package information



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

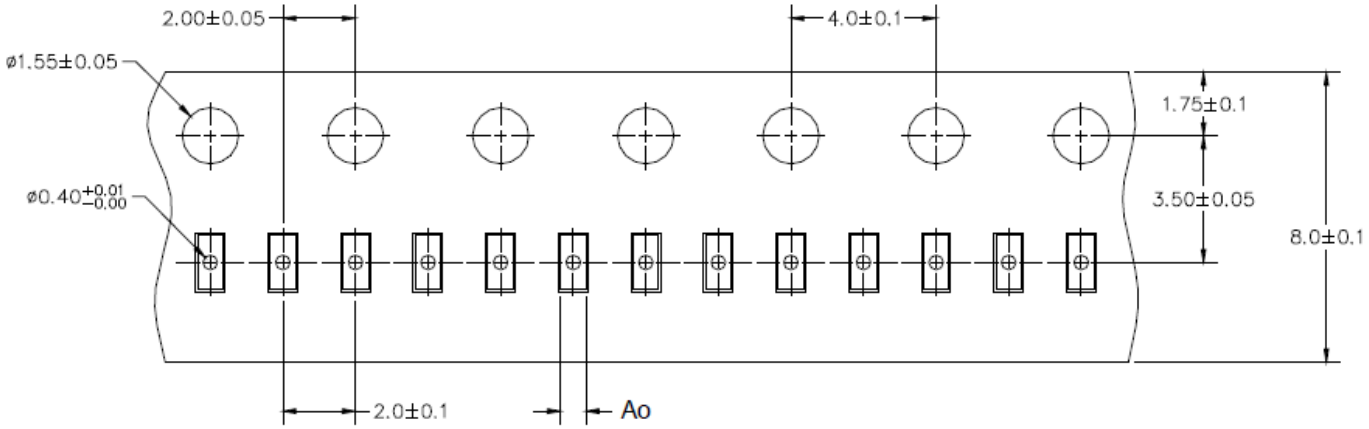
Unit:mm

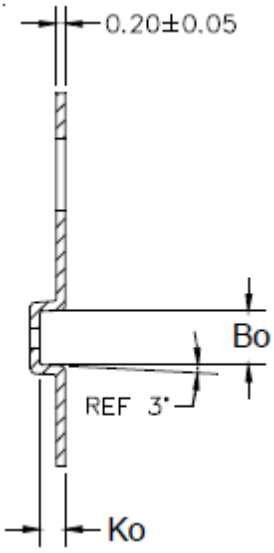
Pad Layout



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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