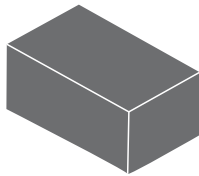
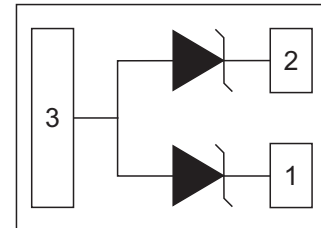


Electro-Static Discharge TUSD05C2U Small Package TVS Diode

DFN1006-3L



Pin Configuration



Features

- With TVS Diode
- ESD Protection:Level 4
- Low clamping voltage
- 45 Watts peak pulse power per line(tp=8/20μS)
- Ultra low capacitance:0.55pF TYP.(any I/O to GND.)
- Protection one line I/O port

IEC Compatibility

- IEC61000-4-2(ESD):Level 4,Contact:±8kv,Air:±15kv
- IEC61000-4-4(EFT):40A -5/50ns
- IEC61000-4-5(Surge):3A -8/20μs

Applications

- Lan equipment
- Video
- DVI
- High Speed Data Line
- Ethernet
- USB 2.0 Power and Data line Protection

Mechanical Characteristics

- JEDEC DFN1006-3L Package
- Molding Compound Flammability Rating : UL 94V-O
- Quantity Per Reel : 5,000pcs
- Reel Size : 7 inch
- Lead Finish : Lead Free

Maximum Ratings($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Units
Peak Pulse Power($t_p=8/20\mu\text{s}$)	P_{PP}	45	Watts
Operating Temperature Range	T_J	-55~150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55~150	$^{\circ}\text{C}$

Electrical Characteristics($T_A=25^{\circ}\text{C}$ unless otherwise specified)

TUSD05C2U(Marking:L)

Parameter	Symbol	Conditions	Min.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}	Pin2-1 to Pin3		5	V
Reverse Breakdown Voltage	V_{BR}	$I_z=1\text{mA}$, Pin1-2 to Pin3	6	9	V
Reverse Leakage Current	I_R	@ V_{RWM}		1	μA
Forward Voltage	V_F	$I_F=15\text{mA}$, Pin3 to Pin1,2		1.15	V
Clamping Voltage	V_C	$I_{PP}=1\text{A}$, $t_p=8/20\mu\text{s}$		15	V
Peak Pulse Current	I_{PP}	$t_p=8/20\mu\text{s}$		3	A
Junction Capacitance	$C_{I/O}$	0Vdc, $f=1\text{MHz}$ Between I/O Pins and GND		0.65	pF

Ratings and Characteristic Curves

Fig.1 Power Derating Curve

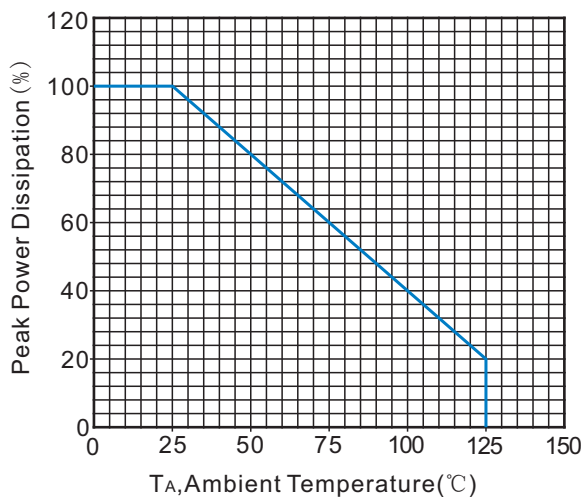
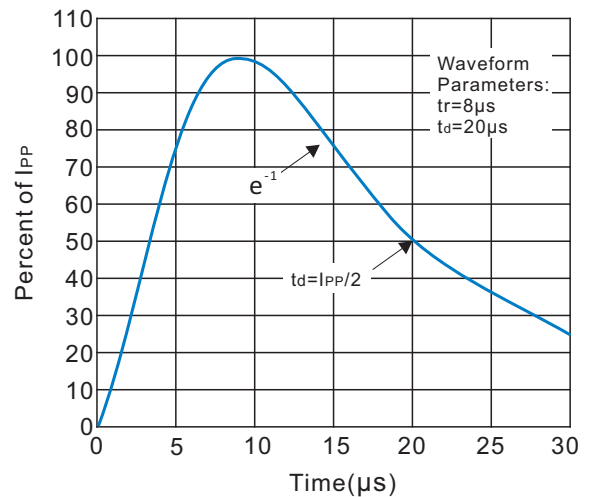
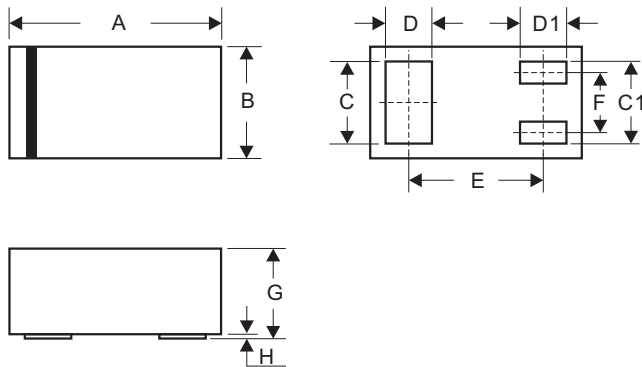


Fig.2 Pulse Waveform



Dimensions(DFN1006-3L)

DFN1006-3L



DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	0.95	1.07	0.037	0.042
B	0.55	0.65	0.022	0.026
C/C1	0.45	0.55	0.017	0.022
D/D1	0.20	0.30	0.008	0.012
E	0.65BSC		0.026BSC	
F	0.20BSC		0.007BSC	
G	0.40	0.55	0.015	0.022
H	0.00	0.10	0.000	0.004

Recommended Mounting Pad Layout

