



LESD8L5.0N3T6G
ESD PROTECTION DIODE

Description

The LESD8L5.0N3T6G protects sensitive semiconductor components from damage or upset due to electrostatic discharge (ESD) and other voltage induced transient events. Excellent clamping capability, low leakage, low capacitance, and fast response time provide best in class protection on designs that are exposed to ESD.

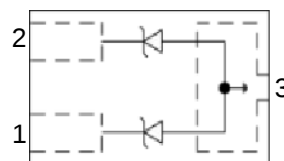
It gives designer the flexibility to protect 2 unidirectional line in applications where arrays are not practical.



DFN1006-3L

Features

- ★ Low Leakage
- ★ Response Time is Typically < 1 ns
- ★ ESD Rating of Class 3 per Human Body Model
- ★ IEC61000-4-2 Level 4 ESD Protection
- ★ We declare that the material of product compliant with RoHS requirements and Halogen Free.



Circuit Diagram

Ordering Information

Product ID	Pack	Qty(PCS)
LESD8L5.0N3T6G	DFN1006-3L	10000

Maximum Ratings

Rating	Symbol	Value	Unit
IEC 61000-4-2 (ESD) Air discharge Contact discharge		±16 ±10	kV kV
Total Power Dissipation on FR-5 Board (Note 1) @ T _A =25°C	PD	200	mW
Junction and Storage Temperature Range	T _J ,T _{STG}	-55 to 150	°C
Lead Solder Temperature – Maximum (10 Second Duration)	TL	260	°C

Stresses exceeding Maximum Ratings may damage the device. Maximum Rating are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

1. FR-5 = 1.0*0.75*0.62 in.



Electrical Characteristics

Symbol	Parameter	Test Condition	Min	Typ	Max	Units
V_{RWM}	Reverse Working Voltage				5.0	V
V_{BR}	Reverse Breakdown Voltage	$I_T = 1mA$	6.0			V
I_R	Reverse Leakage Current	$V_{RWM} = 5.0V$			0.5	μA
V_C	Clamping Voltage	$I_{PP} = 1A, t_p = 8/20\mu s$			12	V
		$I_{PP} = 3A, t_p = 8/20\mu s$			20	V
C_J	Junction Capacitance	$V_R = 0V, f = 1MHz$		0.35		pF

Typical Characteristics

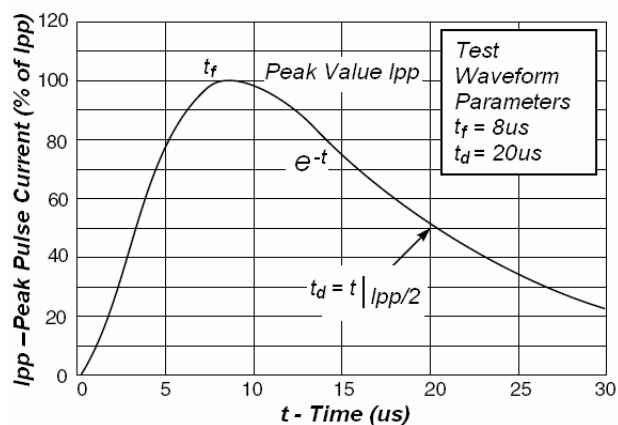


Fig1. Pulse Waveform

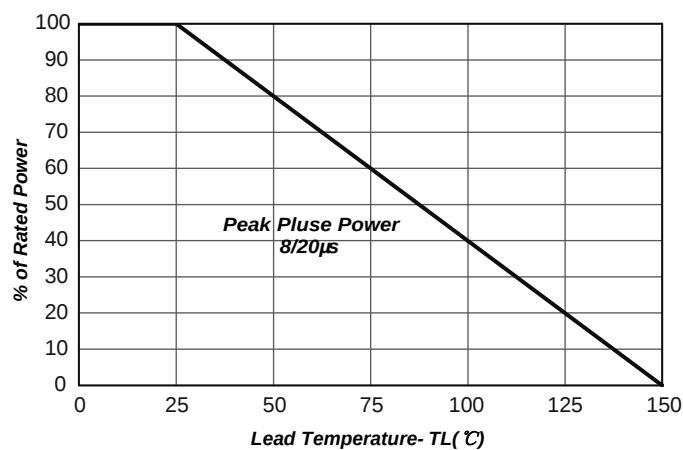
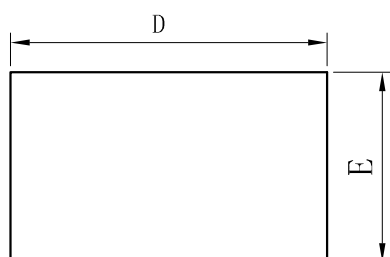


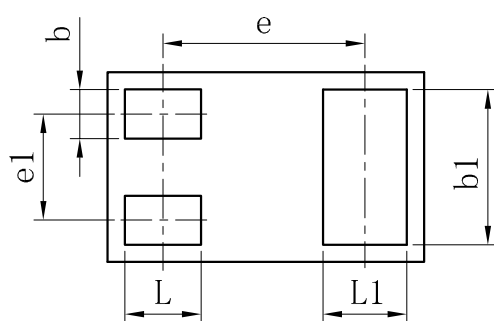
Fig2. Power Derating Curve



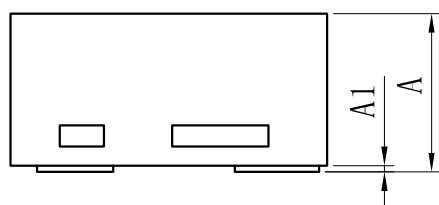
Package Outline Dimensions



TOP VIEW



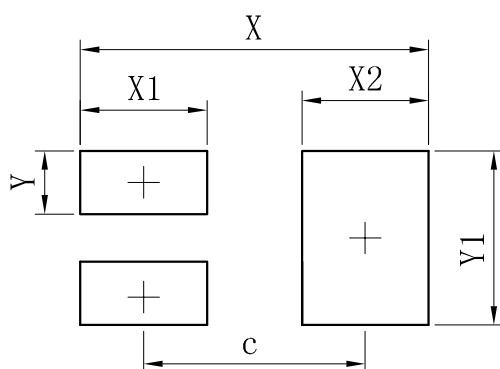
BOTTOM VIEW



SIDE VIEW

DFN1006-3L			
Dim	Min	Typ	Max
D	0.95	1.00	1.05
E	0.55	0.60	0.65
e	–	0.64	–
e1	–	0.34	–
L	0.19	0.24	0.29
L1	0.22	0.27	0.32
b	0.10	0.15	0.20
b1	0.44	0.49	0.54
A	0.43	0.48	0.53
A1	0	–	0.05
All Dimensions in mm			

Suggested Pad Layout



Dimensions	(mm)
c	0.70
X	1.10
X1	0.40
X2	0.40
Y	0.20
Y1	0.55



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