

MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



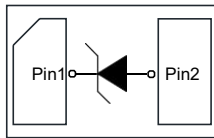
PLED

Product data sheet

www.msksemi.com



DFN1610-2L



Circuit diagram

Features

- Ultra small package: 1.6x1.0x0.5mm
- Protects one data or power line
- Low leakage current
- 2-pin leadless package
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: ±30kV
 - Contact discharge: ±30kV
- RoHS Compliant and Halogen Free

Applications

- Mobile Phones
- Battery Protection
- Power Line Protection
- Vbat pin for Mobile Devices
- Hand Held Portable Applications

Mechanical Characteristics

- Case Material: “Green” Molding Compound.
- Moisture Sensitivity: Level 1 per J-STD-020

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20µs)	Ppk	700	W
Peak Pulse Current (8/20µs)	Ipp	17	A
ESD per IEC 61000-4-2 (Air)	VESD	±30	kV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	T _J	-40 to +150	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

Electrical Characteristics (T_A=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V _{RWM}			24	V	
Breakdown Voltage	V _{BR}	25.5		28.5	V	I _T = 1mA
Reverse Leakage Current	I _R			0.1	µA	V _R = 24V
Clamping Voltage	V _C			32	V	I _{PP} = 10A (8 x 20µs pulse)
Clamping Voltage	V _C			35	V	I _{PP} = 17A (8 x 20µs pulse)
Junction Capacitance	C _J		100		pF	V _R = 0V, f = 1MHz

Typical Performance Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise Specified)

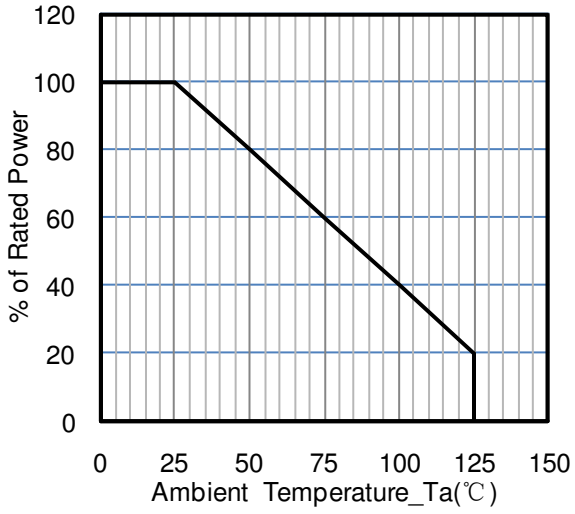


Fig1. Power Derating Curve

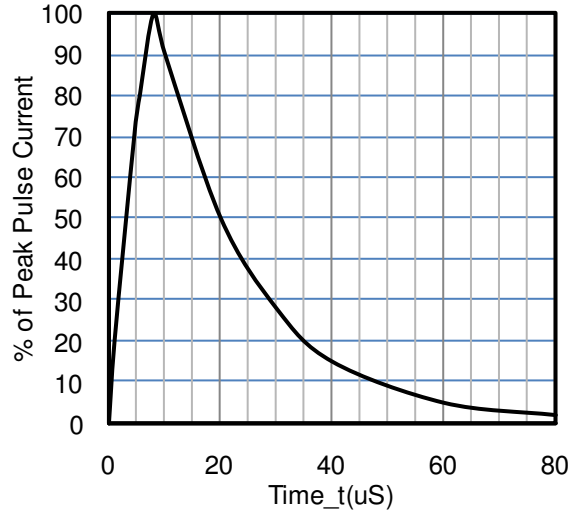


Fig2. 8 X 20uS Pulse Waveform

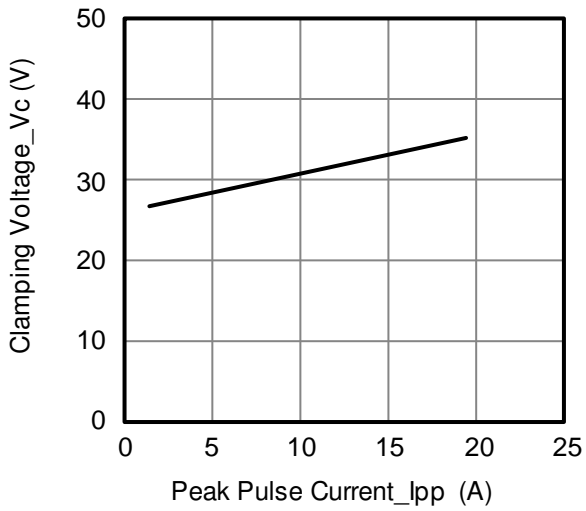
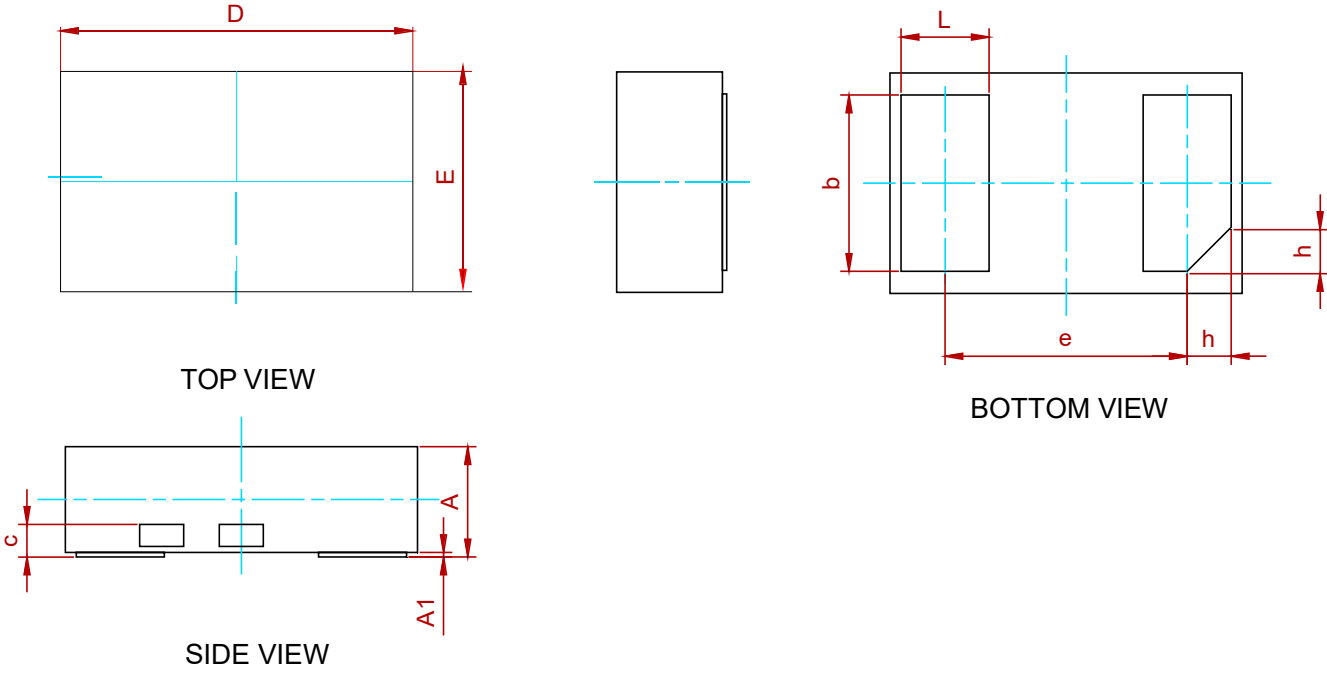


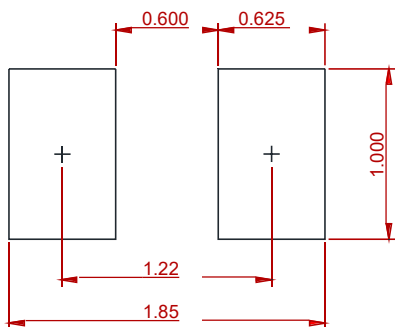
Fig3. Clamping Voltage vs. Peak Pulse Current

PACKAGE MECHANICAL DATA



Symbol	Dimensions in Millimeters		
	Min.	Typ.	Max.
A	0.45	0.50	0.55
A1	0.00	0.02	0.05
c	0.15 Ref.		
b	0.75	0.80	0.85
L	0.35	0.40	0.45
D	1.55	1.60	1.65
E	0.95	1.00	1.05
e	1.10 BSC		
h	0.20 Ref.		

Recommend PCB Layout (Unit: mm)



Notes:

This recommended land pattern is for reference purposes only. Please consult your manufacturing group to ensure your PCB design guidelines are met.

REEL SPECIFICATION

P/N	PKG	QTY
LTVS16H24T5G-MS	DFN1610-2L	3000

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