

## Features

- Ultra low capacitance: 1 pF Max I/O to GND
- Ultra low leakage: nA level
- Low operating voltage: 70V
- Uni-directional TVS Diode Array
- Low clamping voltage
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test  
Air discharge:  $\pm 15$ kV  
Contact discharge:  $\pm 8$ kV
  - IEC61000-4-4 (EFT) 40A (5/50ns)
- ROHS Compliant

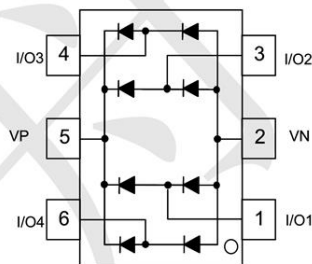
## Mechanical Characteristics

- Package: SOT23-6
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020

## Applications

- USB 2.0 and Firewire Port Protection
- LAN / WLAN Access Point terminals
- Video Signal Line Protection

## Dimensions and Pin Configuration



SOT23-6

**Marking: LG $\square$  Or DALC**

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

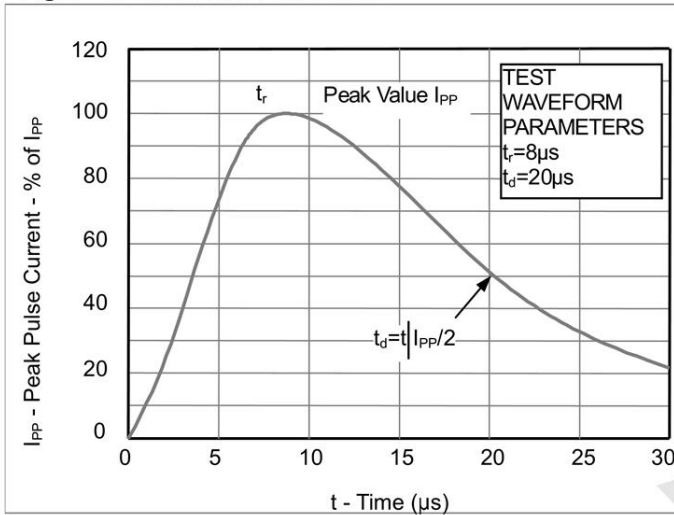
PARAMETER	SYMBOL	VALUE	UNITS
Rectifier Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	70	V
ESD per IEC61000-4-2 (Air)	V <sub>ESD</sub>	>15	kV
ESD per IEC61000-4-2 (Contact)		>8	
Surge Non Repetitive Forward Current-Rectangular waveform tp=2.5μs tp=1ms tp=100ms	I <sub>FRM</sub>	6	A
		2	
		1	
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to 150	°C

**Electrical Characteristics** (TA=25°C unless otherwise specified)

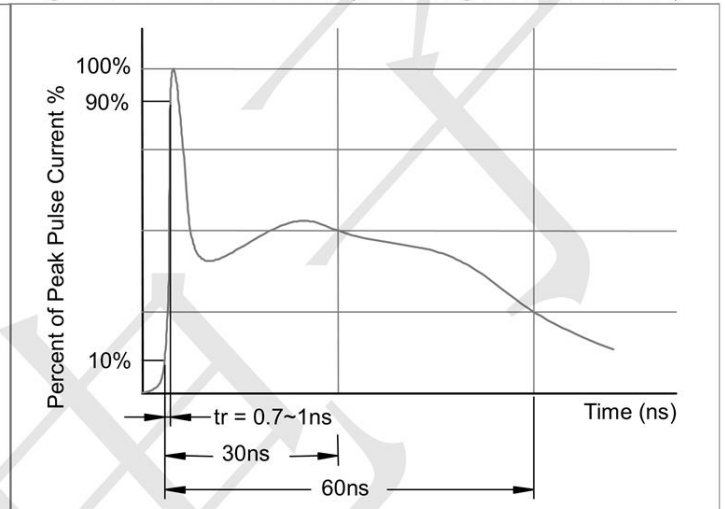
PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Peak Reverse Stand-Off Voltage	V <sub>RRM</sub>		-	-	70	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>BR</sub> =50μA	85	-	-	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>RWM</sub> =70V	-	0.1	1	μA
Off State Junction Capacitance	C <sub>J</sub>	0Vdc, f=1MHz between I/O lines and GND	-	-	1	pF
Off State Junction Capacitance	C <sub>J</sub>	0Vdc, f=1MHz between I/O lines	-	-	0.9	pF

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

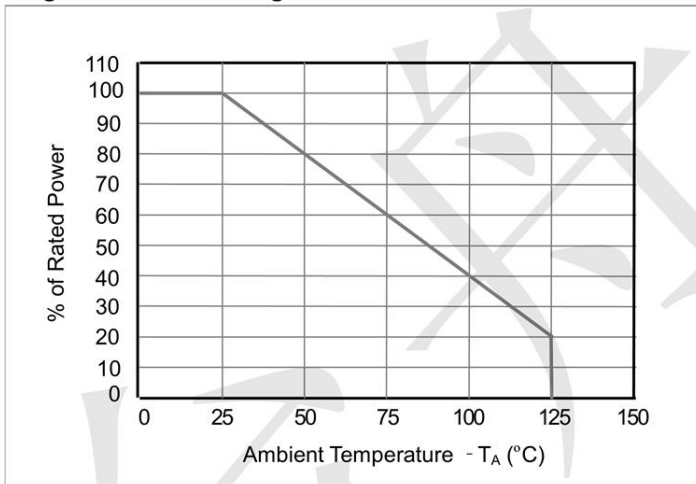
**Fig1. 8/20 $\mu\text{s}$  Pulse Waveform**



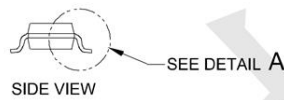
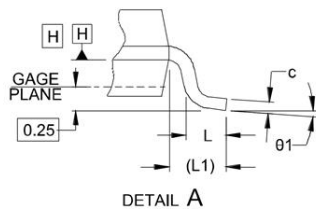
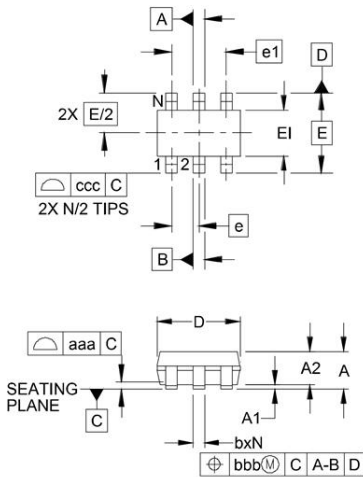
**Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)**



**Fig3. Power Derating Curve**

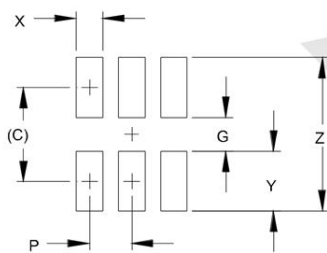


**Outline Drawing - SOT23-6**



DIM	INCHES		MILLIMETERS	
	MIN	NOM MAX	MIN	NOM MAX
A	.035	- .057	0.90	- 1.45
A1	.000	- .006	0.00	- 0.15
A2	.035	.045 .051	.90	1.15 1.30
b	.010	- .020	0.25	- 0.50
c	.003	- .009	0.08	- 0.22
D	.110	.114 .118	2.80	2.90 3.00
E1	.060	.063 .069	1.50	1.60 1.75
E	.110 BSC		2.80 BSC	
e	.037 BSC		0.95 BSC	
e1	.075 BSC		1.90 BSC	
L	.012	.018 .024	0.30	0.45 0.60
L1	(.024)		(0.60)	
N	6		6	
$\theta 1$	0°	- 10°	0°	- 10°
aaa	.004		0.10	
bbb	.008		0.20	
ccc	.008		0.20	

**Land Pattern - SOT23-6**



DIM	DIMENSIONS	
	INCHES	MILLIMETERS
C	(.098)	(2.50)
G	.055	1.40
P	.037	0.95
X	.024	0.60
Y	.043	1.10
Z	.141	3.60