

Features

- Ultra low leakage: nA level
- Operating voltage: 16V
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 15\text{kV}$
 - Contact discharge: $\pm 8\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- RoHS Compliant

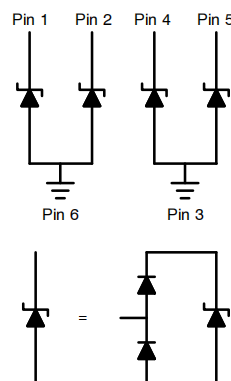
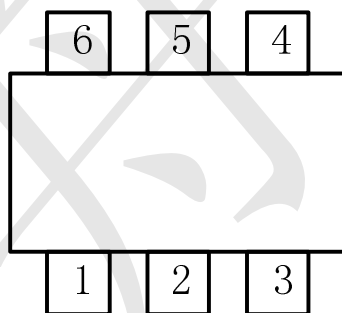
Mechanical Characteristics

- Package: SOT-363 (2.0X2.1X0.35mm)
- Lead Finish: Matte Tin
- Case Material: “Green” Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Shipping Qty : 3000pcs/7Inch Tape & Reel

Applications

- USB2.0/3.0
- LVDS
- HDMI
- High Speed Differential Pairs

Dimensions and Pin Configuration



Marking:LC.F

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

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	± 15 ± 8	kV
Operating Temperature Range	T_J	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^{\circ}\text{C}$

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

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V_{RWM}		5	16	V	
Breakdown Voltage	V_{BR}	16.5			V	$I_T = 1\text{mA}$
Reverse Leakage Current	I_{R}			0.1	μA	$V_{\text{RWM}} = 16\text{V}$
Forward Voltage	V_{F}		0.85	1.2	V	$I_{\text{F}} = 15\text{mA}$
Clamping Voltage	V_{C}		25		V	$I_{\text{PP}} = 1.5\text{A} (8 \times 20\mu\text{s pulse})$
Clamping Voltage	V_{C}		0.4	0.55	V	$V_{\text{R}} = 0\text{V}, f = 1\text{MHz}$ IO to GND
Junction Capacitance	C_{J}		0.25		pF	$V_{\text{R}} = 0\text{V}, f = 1\text{MHz}$ IO to IO

Fig1. 8/20 μ s Pulse Waveform

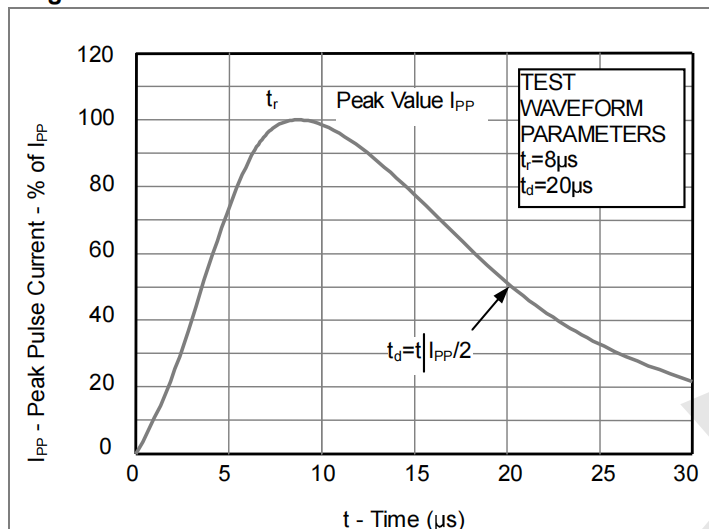


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

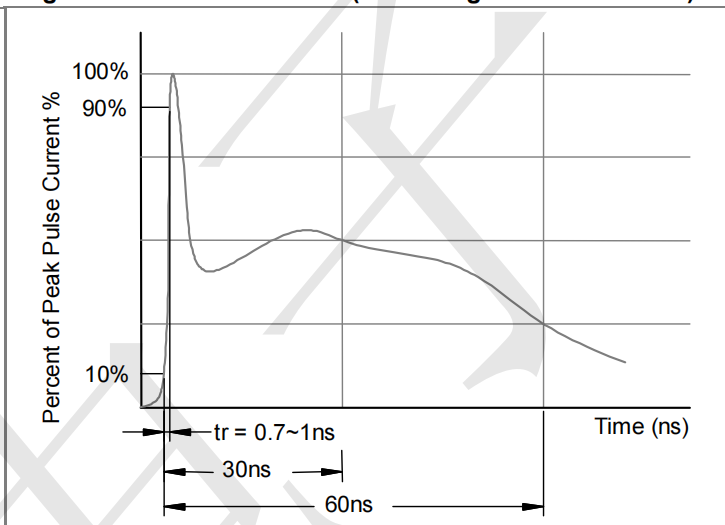
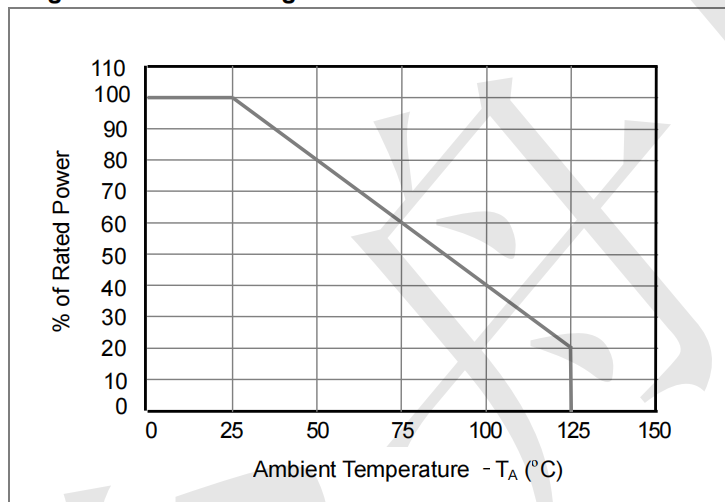
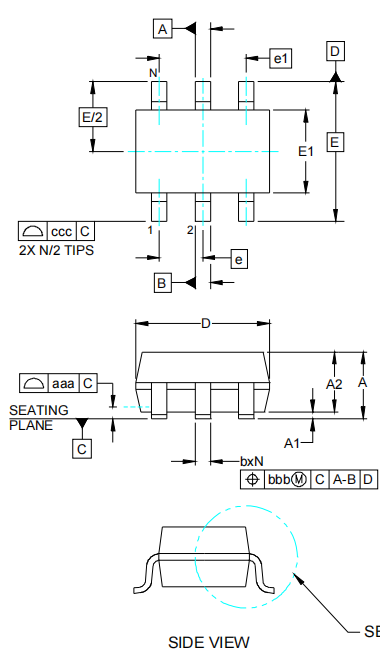


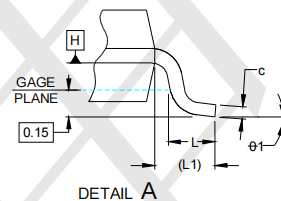
Fig3. Power Derating Curve



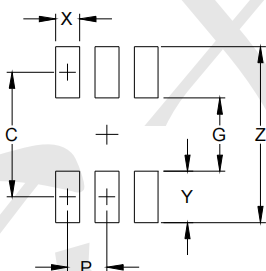
Outline Drawing - SOT-363(2.0X2.1)



DIM	INCHES			MILLIMETERS		
	MIN	NOM	MAX	MIN	NOM	MAX
A	-	-	.043	-	-	1.10
A1	.000	-	.004	0.00	-	0.10
A2	.028	.035	.039	0.70	0.90	1.00
b	.006	-	.012	0.15	-	0.30
c	.003	-	.009	0.08	-	0.22
D	.071	.079	.087	1.80	2.00	2.20
E	.045	.049	.053	1.15	1.25	1.35
E	.083 BSC			2.10 BSC		
e	.026 BSC			0.65 BSC		
e1	.051			1.30 BSC		
L	.010	.014	.018	0.26	0.36	0.46
L1	(.017)			(0.42)		
N	6			6		
θ1	0°	-	8°	0°	-	8°
aaa	.004			0.10		
bbb	.004			0.10		
ccc	.012			0.30		



Land Pattern - SOT-363



DIM	DIMENSIONS	
	INCHES	MILLIMETERS
C	(.073)	(1.85)
G	.039	1.00
P	.026	0.65
X	.016	0.40
Y	.033	0.85
Z	.106	2.70