

### Features

- Low Capacitance for High Speed Interfaces
- Ultra Low Leakage
- Low Operating Voltage
- Ultra Low Clamping Voltage
- Protects Two Lines in Common and Differential Mode
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

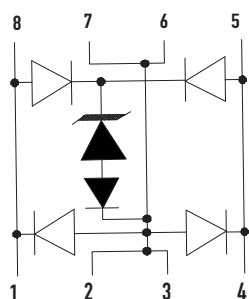
### Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C

MCC Part Number	Device Marking
LC03-3.3	LC-3.3

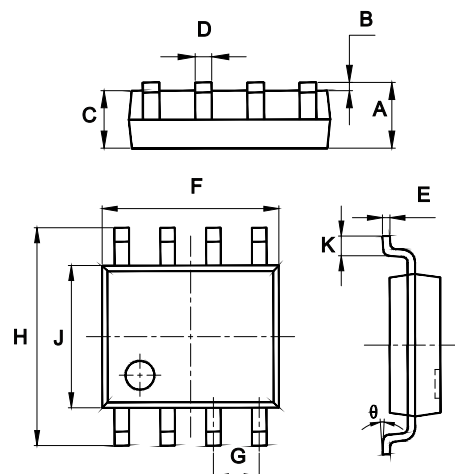
IEC61000-4-2(ESD)	Air Contact	±30KV ±30KV
Peak Pulse Current(8/20µs)	I <sub>PP</sub>	150A
Peak Pulse Power (8/20us)	P <sub>PK</sub>	7200W

### Circuit and Pin Schematic



## ESD Protection Device

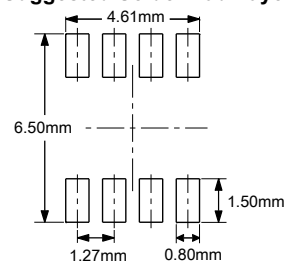
### SOP-8



### DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.053	0.069	1.35	1.75	
B	0.004	0.010	0.10	0.25	
C	0.053	0.061	1.35	1.55	
D	0.013	0.020	0.33	0.51	
E	0.007	0.010	0.17	0.25	
F	0.185	0.200	4.70	5.10	
G	0.050		1.270		TYP.
H	0.228	0.244	5.80	6.20	
J	0.150	0.157	3.80	4.00	
K	0.016	0.050	0.40	1.27	
θ	0°	8°	0°	8°	

### Suggested Solder Pad Layout



**Electrical Characteristics @ 25°C (Unless Otherwise Specified)**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	$V_{RWM}$				3.3	V
Punch-Through Voltage	$V_{PT}$	$I_T=2\mu A$	3.5			V
Snap-Back Voltage	$V_{SB}$	$I_T=50mA$	2.8			V
Reverse Leakage Current	$I_R$	$V_{RWM}=3.3V$			0.5	$\mu A$
Clamping Voltage	$V_C$	$I_{PP}=50A, t_p=8/20\mu s,$ Any I/O Pin to Ground			15	V
Clamping Voltage	$V_C$	$I_{PP}=50A, t_p=8/20\mu s,$ Between I/O Pins			22	V
Clamping Voltage	$V_C$	$I_{PP}=100A, t_p=8/20\mu s,$ Any I/O Pin to Ground			28	V
Clamping Voltage	$V_C$	$I_{PP}=100A, t_p=8/20\mu s,$ Between I/O Pins			36	V
Clamping Voltage	$V_C$	$I_{PP}=150A, t_p=8/20\mu s,$ Any I/O Pin to Ground			38	V
Clamping Voltage	$V_C$	$I_{PP}=150A, t_p=8/20\mu s,$ Between I/O Pins			48	V
Junction Capacitance	$C_J$	$V_R = 0V, f = 1MHz,$ Between I/O Pins and Ground		13	16	pF
Junction Capacitance	$C_J$	$V_R = 0V, f = 1MHz,$ Between I/O Pins		6	9	pF

Note 1: I/O Pins are Pin 1, 4, 5 and 8

## Curve Characteristics

Fig. 1 - 8 X 20µs Pulse Waveform

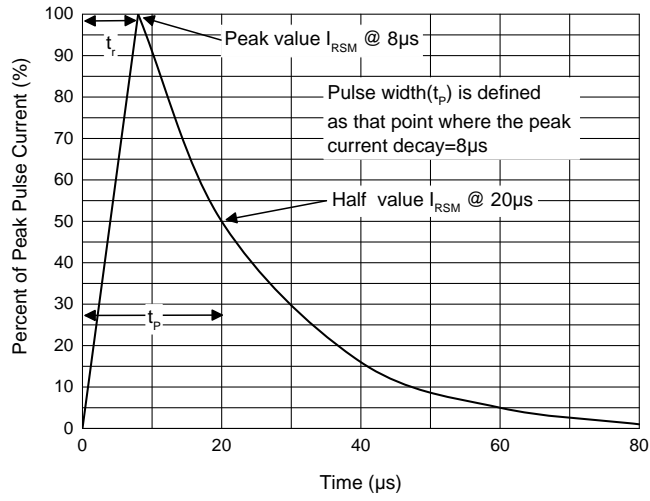
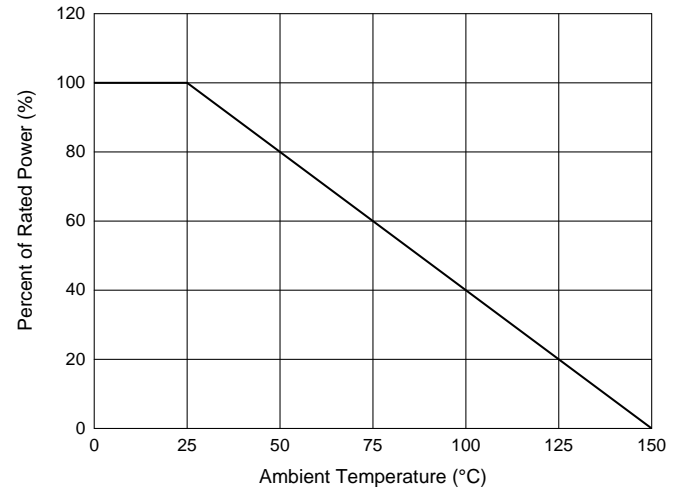


Fig. 2 - Pulse Derating Curve



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel

Note : Adding "-HF" Suffix for Halogen Free, eg. Part Number-TP-HF

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