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SEMICONDUCTOR



ESD



TVS



TSS



MOV

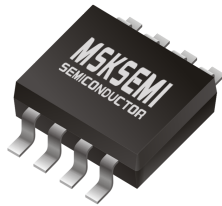


GDT

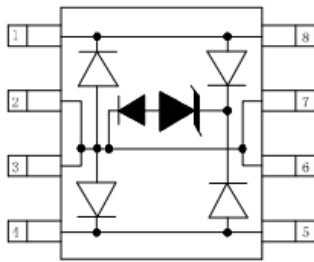


PLED

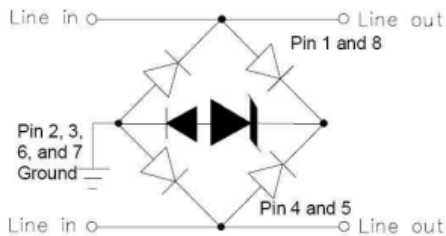
Product data sheet



SOP-8



Pin Configuration



Features

- Ultra low leakage: nA level
- Operating voltage: 6V
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: $\pm 30\text{kV}$
Contact discharge: $\pm 30\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 100A (8/20 μs)
- RoHS Compliant

Applications

- USB 2.0 power and data line
- Set-top box and digital TV
- Digital video interface (DVI)
- Notebook Computers
- SIM Ports
- 10/100 Ethernet

Mechanical Characteristics

- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 500pcs
- Reel Size: 7 inch

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P _{pp}	2000	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 30	Kv
ESD per IEC 61000-4-2 (Contact)		± 30	
Operating Temperature Range	T _J	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	T _{STJ}	-55 to +150	$^{\circ}\text{C}$

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

P/N	Marking	V _{RWM} (V)	V _{BR} (V)	I _T (mA)	V _C @50A	V _C		I _R μA (Max)	C (Pf) (Typ.)
						(Max)	(@A)		
LC03-6-MS	LC03-6	6	6.8	1	15	20	100	25	25

Characteristic Curves

Fig1. 8/20μs Pulse Waveform

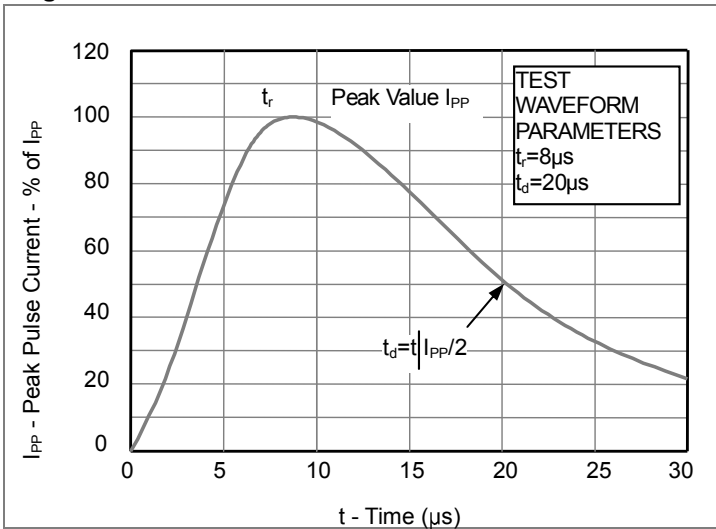


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

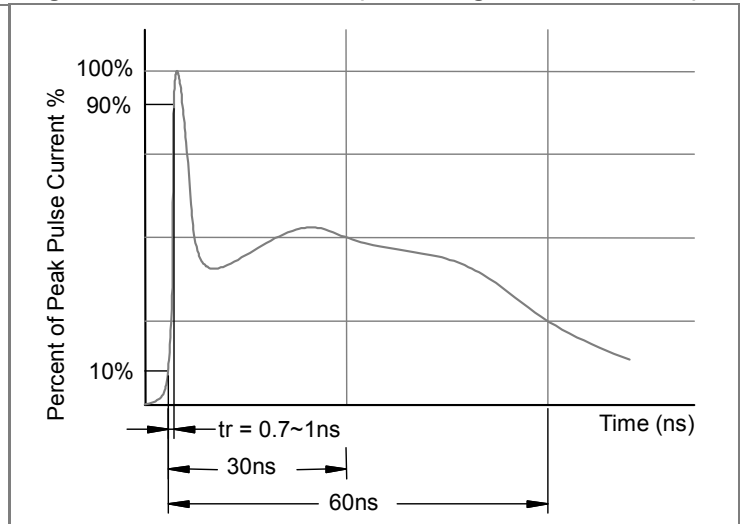
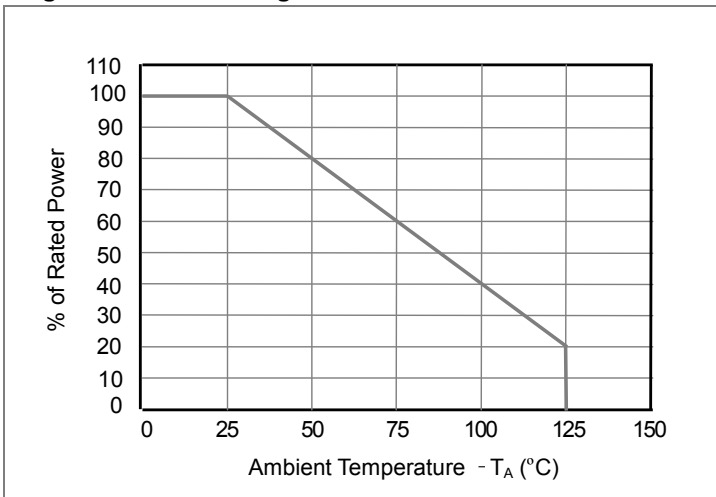
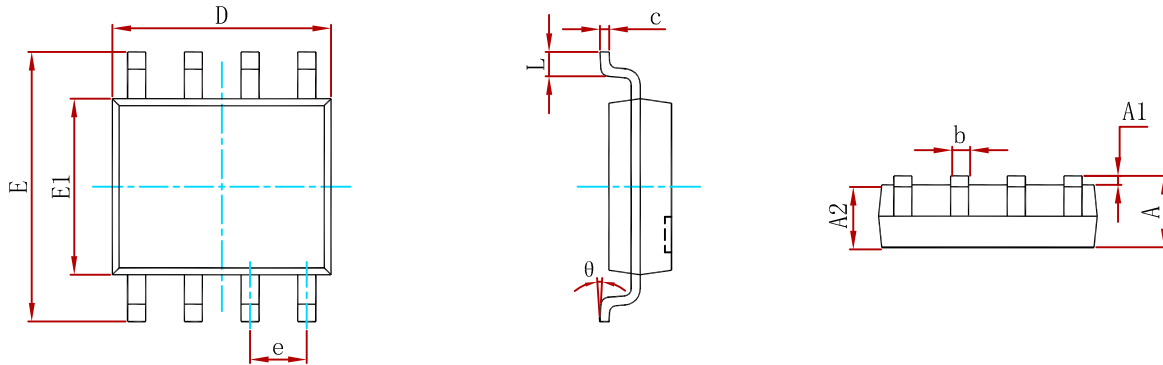


Fig3. Power Derating Curve

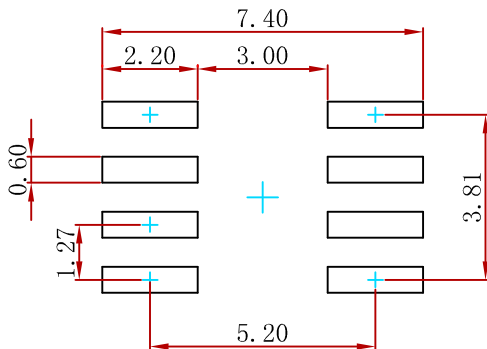


PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.350	1.750	0.053	0.069
A1	0.100	0.250	0.004	0.010
A2	1.350	1.550	0.053	0.061
b	0.330	0.510	0.013	0.020
c	0.170	0.250	0.007	0.010
D	4.800	5.000	0.189	0.197
e	1.270 (BSC)		0.050 (BSC)	
E	5.800	6.200	0.228	0.244
E1	3.800	4.000	0.150	0.157
L	0.400	1.270	0.016	0.050
θ	0°	8°	0°	8°

Suggested Pad Layout



- Note:
1. Controlling dimension: in millimeters.
 2. General tolerance: ± 0.05mm.
 3. The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
LC03-6-MS	SOP-8	500

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