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Mechanical Characteristics

Package: SOT23-6Lead Finish: Matte Tin

UL Flammability Classification Rating 94V-0

Pb-Free, Halogen Free, RoHS/WEEE Compliant



Applications

- USB 2.0 interface
- 10/100 Ethernet
- Personal digital assistants (PDA's)
- Notebooks, Desktops and Servers
- Portable instrumentation
- Digital cameras

Features

Ultra low leakage: nA level

Operating voltage: 5V

Low clamping voltage

Complies with following standards:

- IEC 61000-4-2 (ESD) immunity test

Air discharge: ±30kV Contact discharge: ±30kV

- IEC61000-4-4 (EFT) 40A (5/50ns)

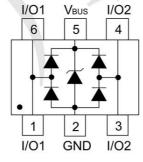
-IEC61000-4-5 (Lightning) 6A (8/20µs)

RoHS Compliant

Ordering Information

Part Number	Qty per Reel	Reel Size	
TPUSBLC6-2SC6	3000	7"	

Dimensions and Pin Configuration



Marking: UL26



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

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Parameter	Symbol	Value	Unit	
Peak Pulse Power (8/20µs)	Ppk	150	W	
Peak Pulse Current (8/20µs)	Ipp	6	Α	
ESD per IEC 61000-4-2 (Air)	VESD	±30	kV	
ESD per IEC 61000-4-2 (Contact)	VESD	±30	KV	
Operating Temperature Range	TJ	-55 to +125	°C	
Storage Temperature Range	Tstg	−55 to +150	°C	

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

Parameter	Symbol	Test Condition	Min	Тур	Max	Unit
Reverse stand-off voltage	V_{RWM}	$\langle \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$			5	V
Reverse breakdown voltage	V_{BR}	I _{BR} =1mA	6		9	V
Reverse leakage current	I _R	V _R =5V			0.1	μА
Clamping voltage (tp=8/20µs)	V _c	I _{PP} =1A			10	V
Clamping voltage (tp=8/20µs)	Vc	I _{PP} =6A			15	V
Junction capacitance	Cı	0Vdc,f=1MHz Between I/O pins and GND		0.8	1	pF
	Cı	0Vdc,f=1MHz I/O to I/O		0.35	0.4	pF



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Typical Performance Characteristics (T_A=25°C unless otherwise Specified)

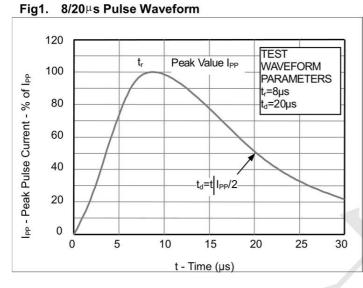


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

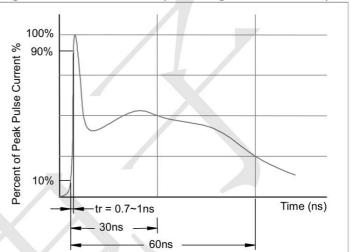
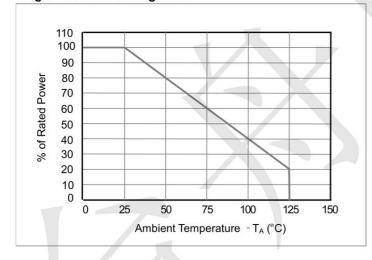


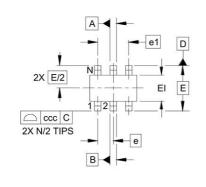
Fig3. Power Derating Curve

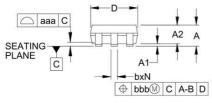


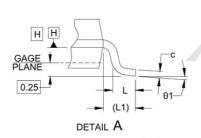


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Outline Drawing - SOT23-6



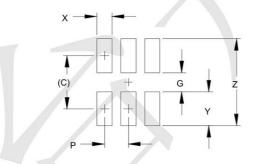






		DIM	IENSI	ONS		
DIM	INCHES			MILLIMETERS		
DIM	MIN	NOM	MAX	MIN	NOM	MAX
Α	.035	-	.057	0.90	-	1.45
A1	.000	-0	.006	0.00	-	0.15
A2	.035	.045	.051	.90	1.15	1.30
b	.010	-	.020	0.25		0.50
С	.003	-	.009	0.08	-	0.22
D	.110	.114	.118	2.80	2.90	3.00
E1	.060	.063	.069	1.50	1.60	1.75
E	.110 BSC			2.80 BSC		
е	.037 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		
01	0°	-	10°	0°	121	10°
aaa	.004				0.10	
bbb	.008			0.20		
CCC	.008				0.20	

Land Pattern - SOT23-6



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