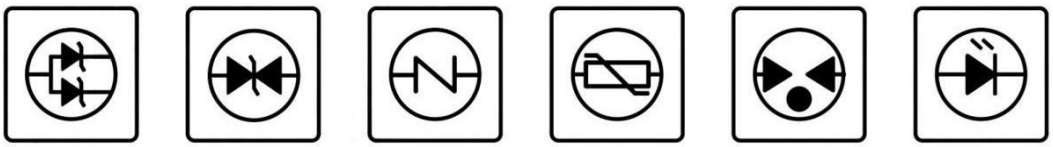
MSKSEMI 美森科
SEMICONDUCTOR



MSUSBLC6-2SC6

Product specification

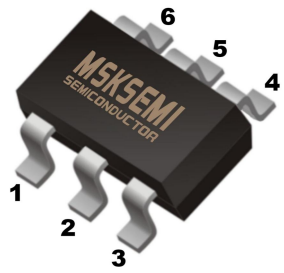
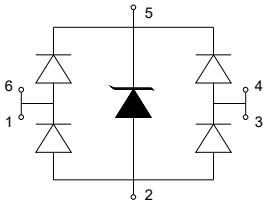
Features

- IEC 61000-4-2 Level 4 ESD Protection
  - ±12kV Contact Discharge
  - ±17kV Air Discharge
- 75W Peak pulse Power (8/20us)
- Low leakage current
- Working voltage: 5V
- RoHS compliant
- Protecting two unidirectional lines
- Low clamping voltage

Applications

- Portable electronics
- USB 2.0 and USB 3.0
- HDMI 1.3 and HDMI 1.4
- SATA and eSATA
- DVI
- IEEE 1394
- PCI Express
- Notebooks

Reference News

SOT-26-6	PIN Configuration	Marking
		

Pin Configuration and Functions

Pin	Name	Description
1	IO1	Connect to I/O
2	GND	Connect to GND
3	IO2	Connect to I/O
4	IO3	Connect to I/O
5	Vcc	Connect to Vcc
6	IO4	Connect to I/O

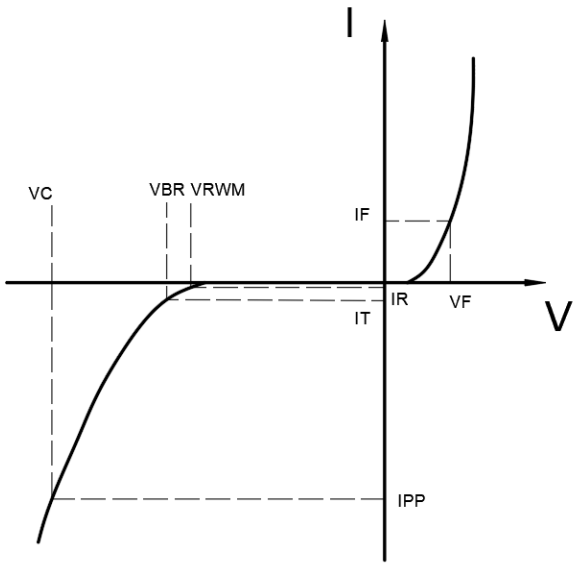
Absolute Maximum rating Over operating free-air temperature range (unless otherwise noted)

Parameters	Symbol	Min.	Max.	Unit
Peak pulse power (tp=8/20us)@25℃	P_{pk}	-	75	W
Peak pulse current (tp=8/20us)@25℃	I_{PP}		4.5	A
ESD (IEC61000-4-2 air discharge) @25℃	V_{ESD}	-	±17	kV
ESD (IEC61000-4-2 contact discharge) @25℃	V_{ESD}	-	±12	kV
Junction temperature	T_J	-	150	℃
Operating temperature	T_{OP}	-40	125	℃
Storage temperature	T_{STG}	-55	150	℃
Lead temperature	T_L	-	260	℃

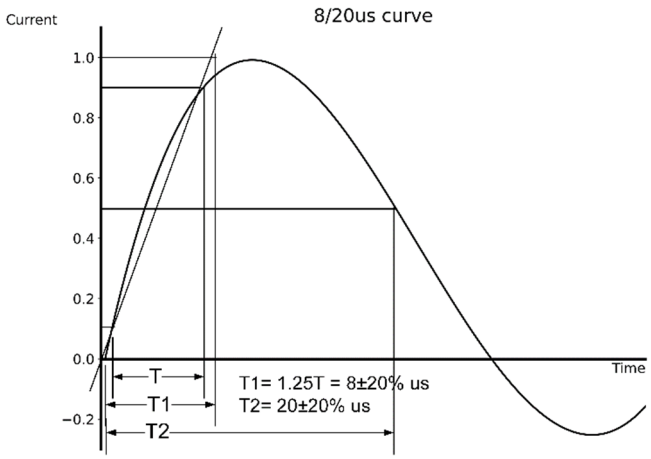
Electrical Characteristics At TA = 25℃ unless otherwise noted

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	IT=1mA	6			V
Reverse Leakage Current	I_R	V_{RWM}=5V			1	uA
Clamping Voltage	V_C	IPP=1A; tp=8/20us		10		V
Clamping Voltage	V_C	IPP=4.5A; tp=8/20us		15		V
Junction Capacitance	C_J	VR=0V; f=1MHz		0.8		pF

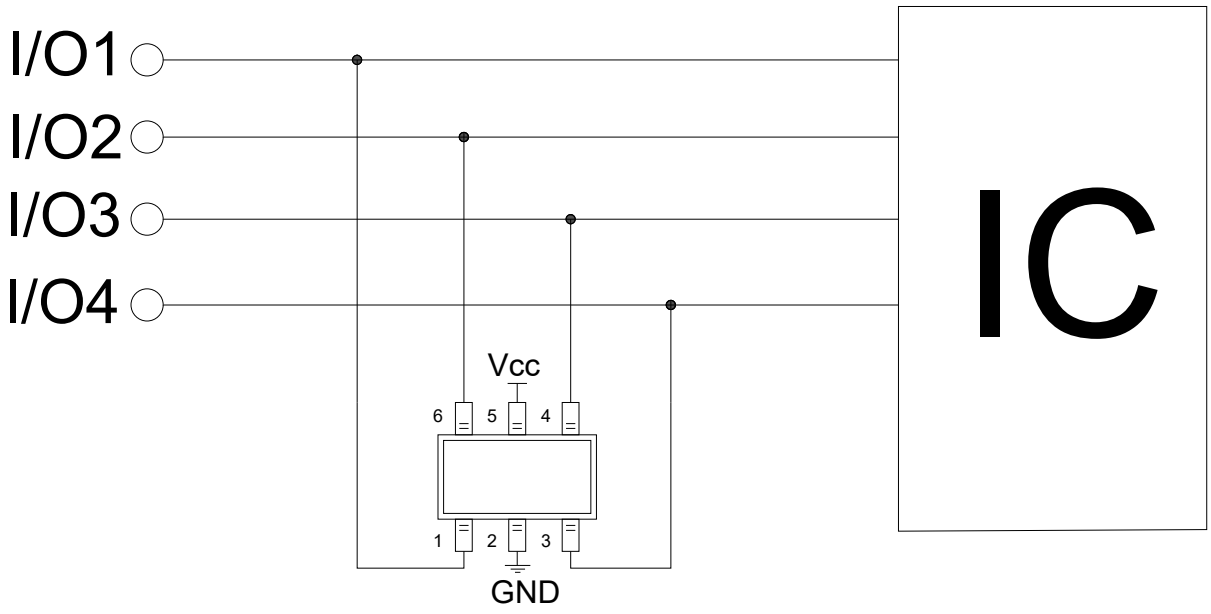
Symbol	Parameters
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
I_F	Forward Current
V_F	Forward Voltage @ I_F



Typical Characteristic

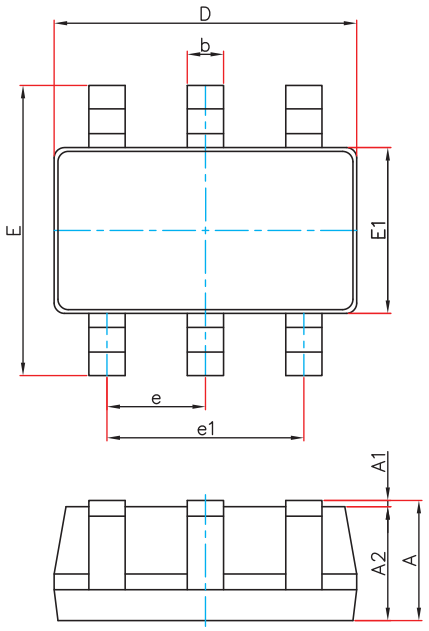


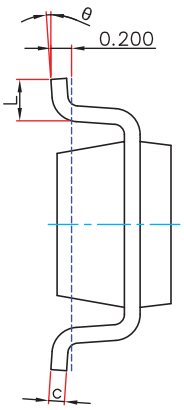
Typical Application



MSUSBLC6-2SC6

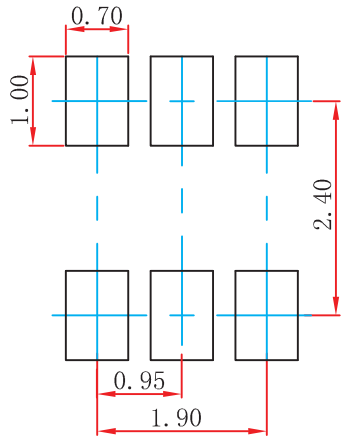
Package Outline Dimensions





Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E1	1.500	1.700	0.059	0.067
E	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
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.

Order information

Orderable Device	Package	Packing Option
MSUSBLC6-2SC6	SOT-23-6	3000PCS

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