EVVOSEMI®

THINK CHANGE DO

| ESD | TVS | MOS | LDO | Diode | Sensor | DC-DC |

Product Specification

▸ Domestic	Part Number	USBLC6-4SC6
▸ Overseas	Part Number	USBLC6-4SC6-EV
▸ Equivalent	Part Number	USBLC6-4SC6

EV is the abbreviation of name EVVO

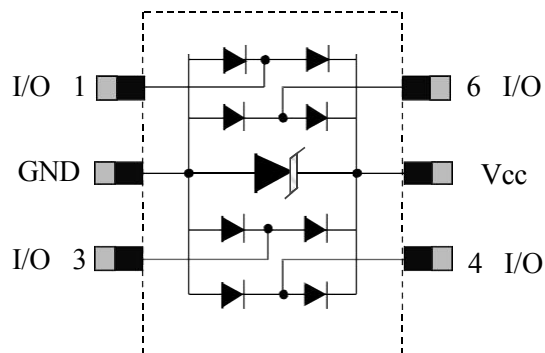## Features

- 60Watts peak pulse power (tp = 8/20μs)
- Low clamping voltage
- Low leakage current
- Low capacitance (Cj=0.3pF typ. IO to IO)
- Protection one data/power line to:
- IEC 61000-4-2 ±12kV contact ±15kV air
- IEC 61000-4-4 (EFT) 40A(5/50ns)
- IEC 61000-4-5 (Lightning) 3.5A(8/20μs)
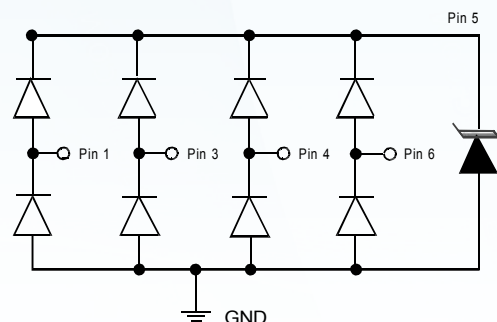
Applications

- Ethernet
- Digital Visual Interface (DVI)
- USB2.0
- Notebook and PC Computers

Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power (t_p=8/20μs)	P_{PP}	60	Watts
Peak Pulse Current (t_p=8/20μs)(note1)	I_{pp}	3.5	A
ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2(Contact)	V_{ESD}	15 12	kV
Lead Soldering Temperature	T_L	260(10seconds)	℃
Junction Temperature	T_J	-55 to + 125	℃
Storage Temperature	T_{stg}	-55 to + 125	℃

Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				5.0	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	6	7.8	8.5	V
Reverse Leakage Current	I_R	V_{RWM}=5V,T=25℃		50	500	nA
Peak Pulse Current	I_{PP}	tp =8/20μs			3.5	A
Clamping Voltage	V_C	IPP=3.5A,tp=8/20μs		10	13	V
Junction Capacitance	C_j	V_R = 0V, f =1MHz IO to IO		0.2	0.25	pF
		V_R = 0V, f =1MHz IO to GND		0.36	0.5	

ElectricalParameters (TA=25°Cunlessotherw isenot ed)

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
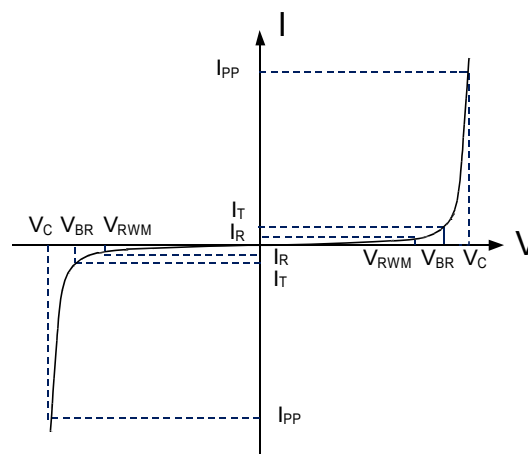
Note:. 8/20μs pulsewaveform.

Typical Characteristic Curves
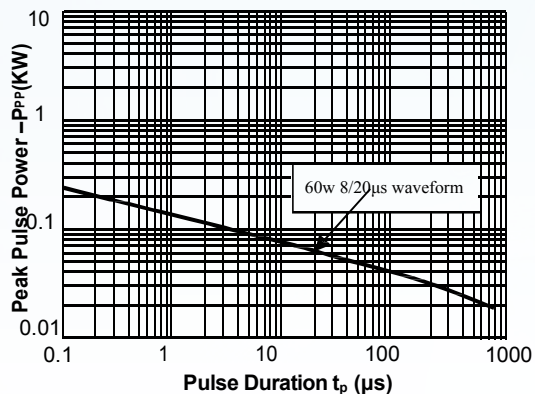
Fig.1 Peak Pulse Power RatingCurve
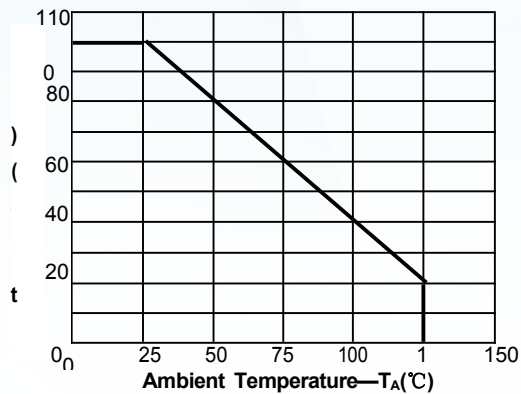

Fig.2 Pulse DeratingCurve

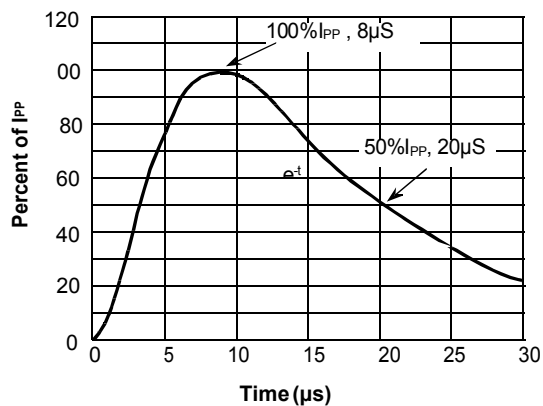**Fig.3 PulseWaveform-8/20μs**

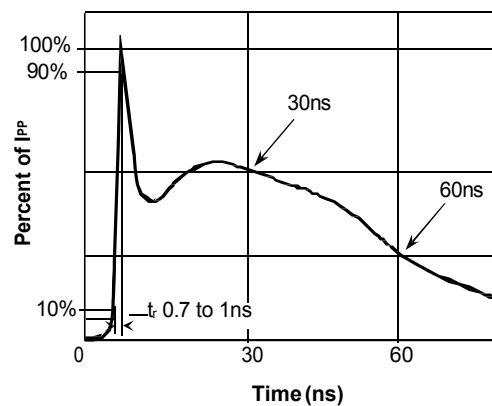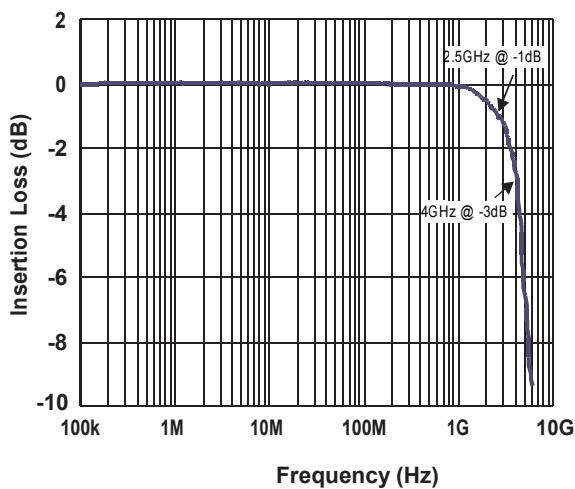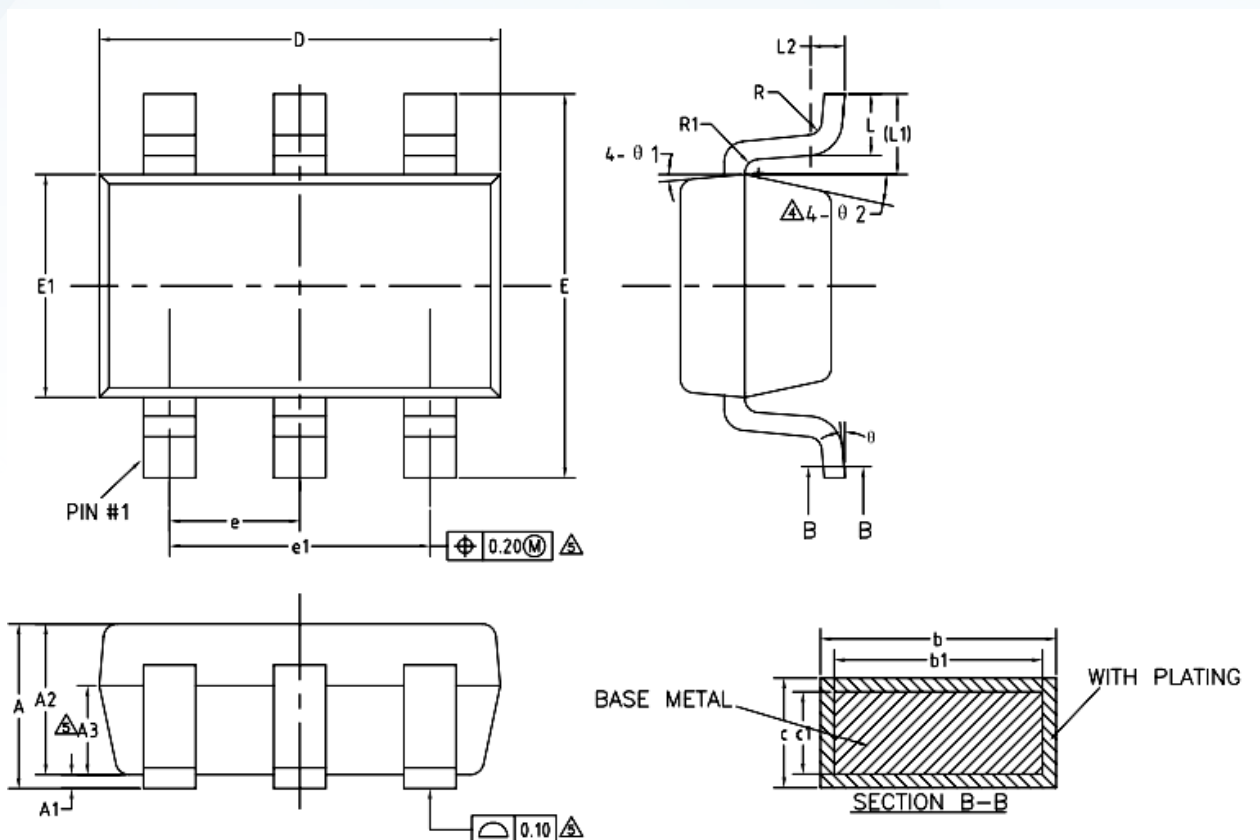**Fig.4 PulseWaveform-ESD(IEC61000-4-2)**
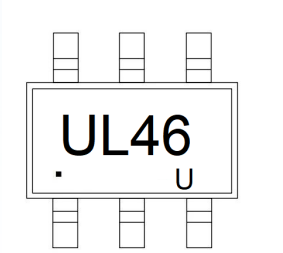

Fig.5 Insertion Loss S21 - I/O toGND

SOT23-6

COMMON DIMENSIONS
(UNITS OF MEASURE=MILLIMETER)

SYMBOL	MIN	NOM	MAX
A	–	–	1.25
A1	0	–	0.15
A2	1.00	1.10	1.20
A3	0.60	0.65	0.70
b	0.36	–	0.50
b1	0.36	0.38	0.45
c	0.14	–	0.20
c1	0.14	0.15	0.16
D	2.826	2.926	3.026
E	2.60	2.80	3.00
E1	1.526	1.626	1.726
e	0.90	0.95	1.00
e1	1.80	1.90	2.00
L	0.35	0.45	0.60
L1	0.59REF		
L2	0.25BSC		
R	0.10	–	–
R1	0.10	–	0.20
θ	0°	–	8°
θ1	3°	5°	7°
θ2	6°	–	14°

Marking

UL46
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Ordering   information

Order code	Package	Base qty	Delivery mode
USBLC6-4SC6	SOT23-6	3000	Tape and reel

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