

### ■ Features

- Uni-directional ESD protection of two lines
- 75Watts peak pulse power ( $t_p = 8/20\mu s$ )
- Working voltage: 5V
- Low clamping voltage
- Low leakage current
- Protecting two unidirectional lines
- IEC 61000-4-2  $\pm 12kV$  contact  $\pm 17kV$  air
- IEC 61000-4-5 (Lightning) 4.5A ( $8/20\mu s$ )

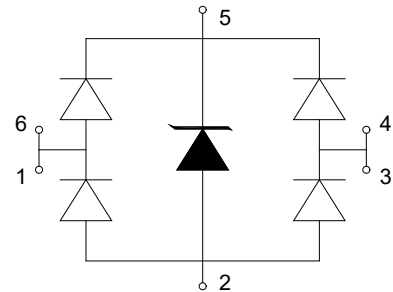
### ■ Applications

- 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

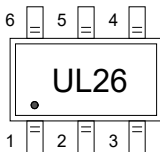
### ■ Mechanical Data

- Package: SOT-23-6L
- Molding compound flammability rating: UL 94V-0
- RoHS/WEEE Compliant

### ■ Schematic & PIN Configuration



### ■ Ordering Information

Part Number	Package	Marking	Packing	Reel Size
USBLC6-2SC6	SOT-23-6L		3000 Tape & Reel	7 inches

**■ Absolute Maximum Rating( $T_A=25^{\circ}\text{C}$  unless otherwise Specified)**

Parameters	Symbol	Min	Max	Unit
Peak pulse power ( $t_p=8/20\mu\text{s}$ )@ $25^{\circ}\text{C}$	$P_{pk}$	-	75	W
Peak pulse current ( $t_p=8/20\mu\text{s}$ )@ $25^{\circ}\text{C}$	$I_{PP}$		4.5	A
ESD (IEC61000-4-2 air discharge) @ $25^{\circ}\text{C}$	$V_{ESD}$	-	$\pm 17$	kV
ESD (IEC61000-4-2 contact discharge) @ $25^{\circ}\text{C}$	$V_{ESD}$	-	$\pm 12$	kV
Junction temperature	$T_J$	-	125	$^{\circ}\text{C}$
Operating temperature	$T_{OP}$	-40	85	$^{\circ}\text{C}$
Storage temperature	$T_{STG}$	-55	150	$^{\circ}\text{C}$
Lead temperature	$T_L$	-	260	$^{\circ}\text{C}$

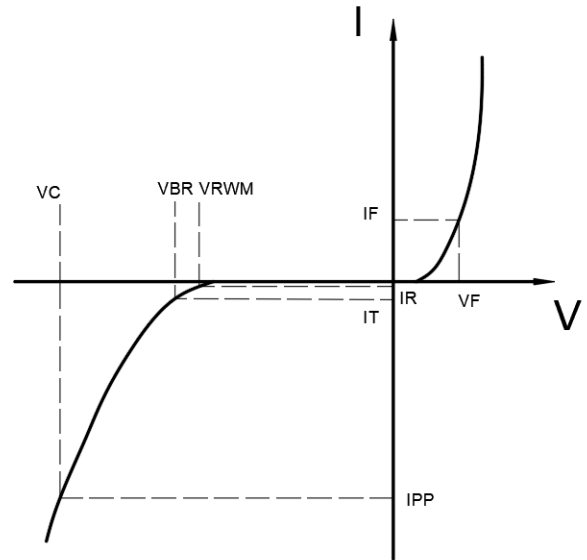
**■ Electrical Characteristics( $T_A=25^{\circ}\text{C}$  unless otherwise Specified)**

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse Stand-off Voltage	$V_{RWM}$				5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1\text{mA}$	6			V
Reverse Leakage Current	$I_R$	$V_{RWM}=5\text{V}$			1	$\mu\text{A}$
Clamping Voltage	$V_C$	$I_{PP}=1\text{A}; t_p=8/20\mu\text{s}$		10		V
Clamping Voltage	$V_C$	$I_{PP}=4.5\text{A}; t_p=8/20\mu\text{s}$		15		V
Junction Capacitance	$C_J$	$V_R=0\text{V}; f=1\text{MHz}$		0.8		pF

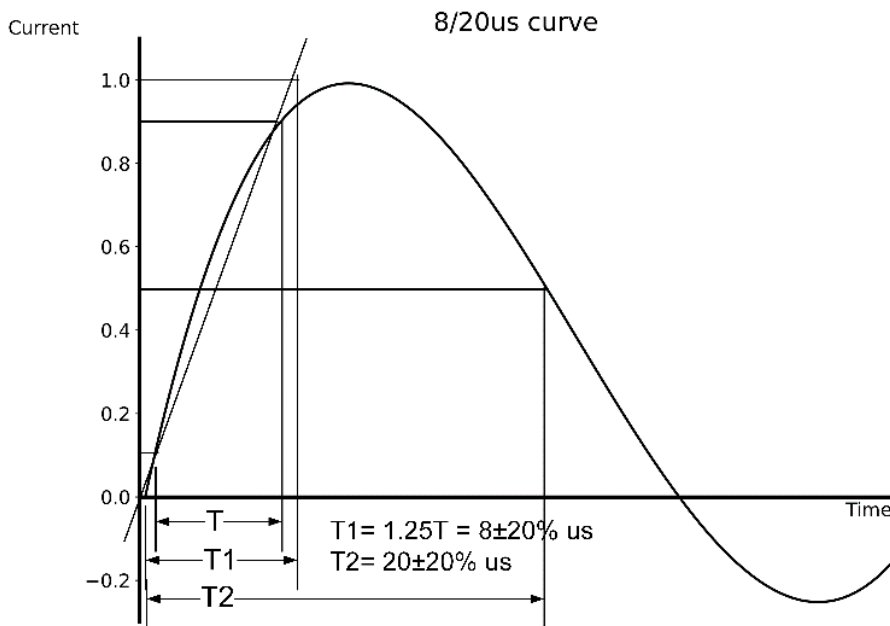


■ Electrical Parameters( $T_A=25^\circ\text{C}$  unless otherwise Specified)

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 @ $I_F$

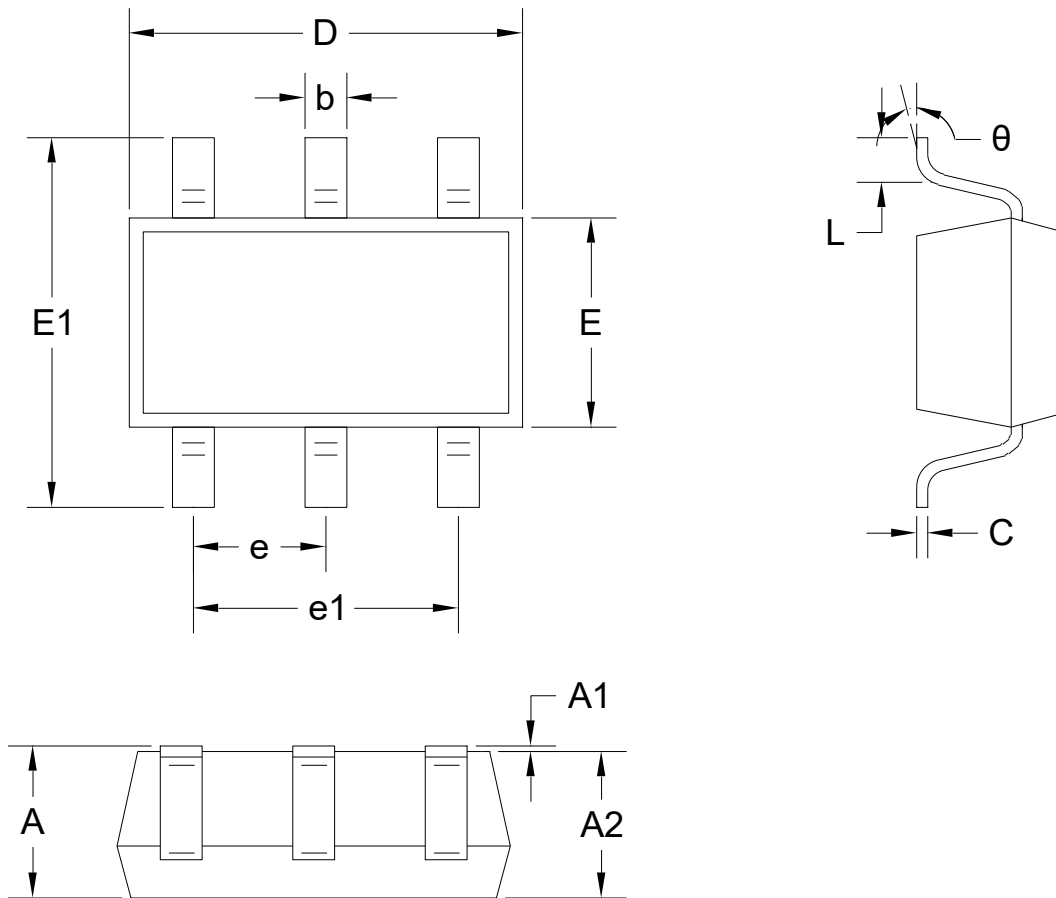


■ Typical Characteristics( $T_A=25^\circ\text{C}$  unless otherwise Specified)





■ Outline Drawing – SOT-23-6L



Unit: mm

Symbol		A	A1	A2	b	c	D
Spec	Min	1.050	0.000	1.050	0.300	0.100	2.820
	Max	1.250	0.100	1.150	0.500	0.200	3.020
Symbol		E	E1	e	e1	L	$\theta$
Spec	Min	1.500	2.650	0.950BSC	1.800	0.300	0°
	Max	1.700	2.950		2.000	0.600	8°