

■ Features

- Uni-directional ESD protection of two lines
- 60Watts peak pulse power ($t_p = 8/20\mu s$)
- Working voltage: 5V
- Low clamping voltage
- Low leakage current
- Ultra-low Capacitance: 0.6pF (Typical)
- Protecting two I/O line
- Solid-state silicon technology
- IEC 61000-4-2 $\pm 12kV$ contact $\pm 17kV$ air
- IEC 61000-4-5 (Lightning) 4.5A (8/20 μs)

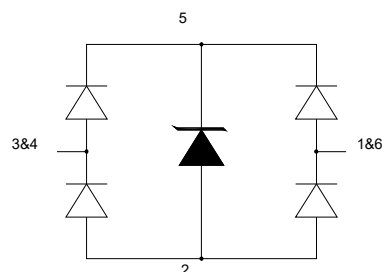
■ Applications

- HDMI/USB2.0
- Monitors and flat panel display
- 10/100/1000 ethernet
- Notebook computers
- SIM ports
- ATM interface

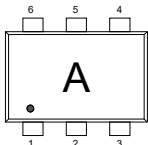
■ Mechanical Data

- Package: SOT-563
- 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-563		3000 Tape & Reel	7 inches

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

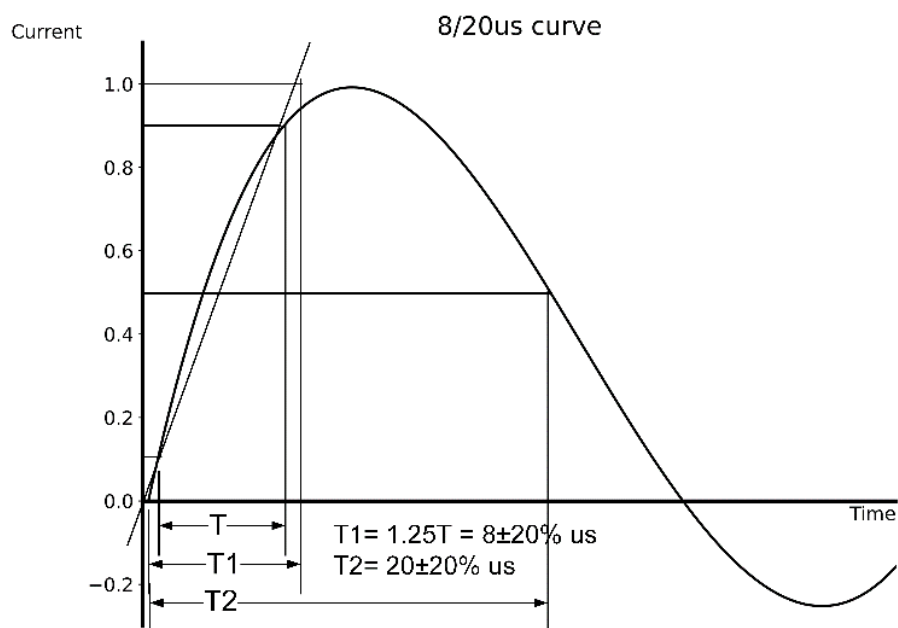
Parameters	Symbol	Min	Max	Unit
Peak pulse power ($t_p=8/20\mu\text{s}$)@ 25°C	P_{pk}	-	60	W
Peak pulse current ($t_p=8/20\mu\text{s}$)@ 25°C	I_{PP}		4.5	A
ESD (IEC61000-4-2 air discharge) @ 25°C	V_{ESD}	-	± 17	kV
ESD (IEC61000-4-2 contact discharge) @ 25°C	V_{ESD}	-	± 12	kV
Junction temperature	T_J	-	150	$^{\circ}\text{C}$
Operating temperature	T_{OP}	-40	125	$^{\circ}\text{C}$
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)

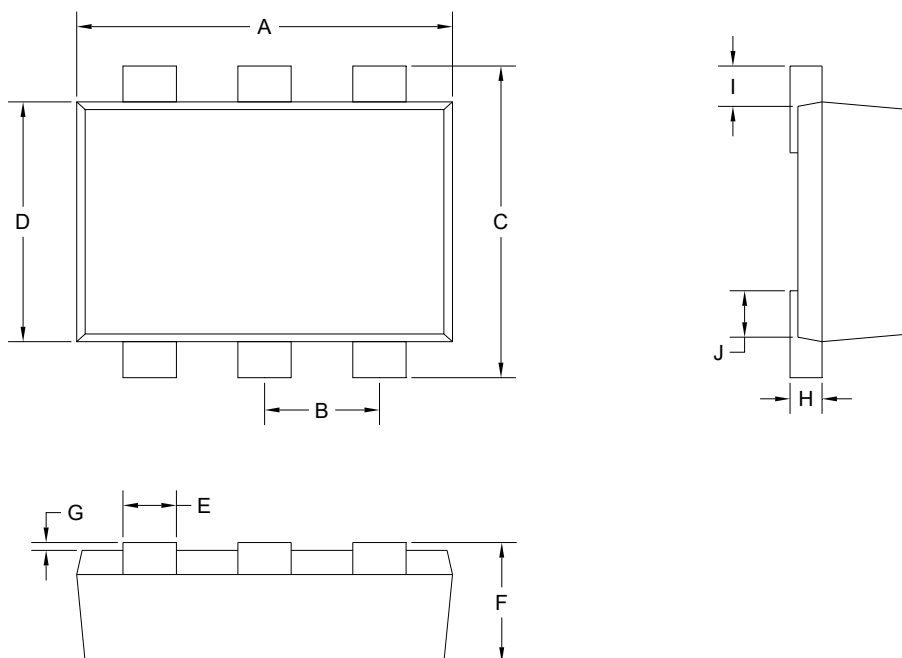
Parameters	Symbol	conditions	Min	Typ	Max	Unit
Reverse stand-off voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	6			V
Reverse Leakage Current	I_R	$V_{RWM}=5\text{V}$			1	μA
Peak Pulse Current	I_{PP}	$TP=8/20\mu\text{s}@25^{\circ}\text{C}$		4.5		A
Clamping Voltage	V_{CL}	$I_{PP}=1\text{A}; TP=8/20\mu\text{s}$		8.5		
Clamping Voltage	V_{CL}	$I_{PP}=4.5\text{A}; TP=8/20\mu\text{s}$		12		V
Junction capacitance	C_J	I/O pins to ground; $V_R=0\text{V}; f=1\text{MHz}$		0.6		pF
		Between I/O pins; $V_R=0\text{V}; f=1\text{MHz}$		0.3		



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



■ Outline Drawing – SOT-563



Unit: mm

symbol	A	B	C	D	E	F	G	H	I	J
Min.	1.50	0.50	1.55	1			0.00	0	0.10	0.15
Max.	1.70	0.60	1.70	1			0.05	0	0.30	0.20