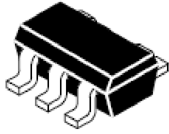
1.Product outline

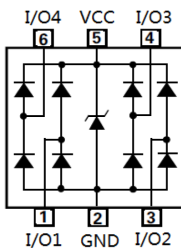


SOT23-6L

2.Features

•Capacitance: 0.4pF(typ.)
•Reverse Working Voltage: 5V
•EC 61000-4-2 (ESD Air): ±15KV
•IEC 61000-4-2 (ESD Contact): ±10KV
•IEC 61000-4-5 (Lightning 8/20μs): 5A

3.Schematic Diagram



4.Applications

•USB2.0
•Video Graphics Cards
•DVI
•Monitors and Flat Panel Displays
•Notebooks

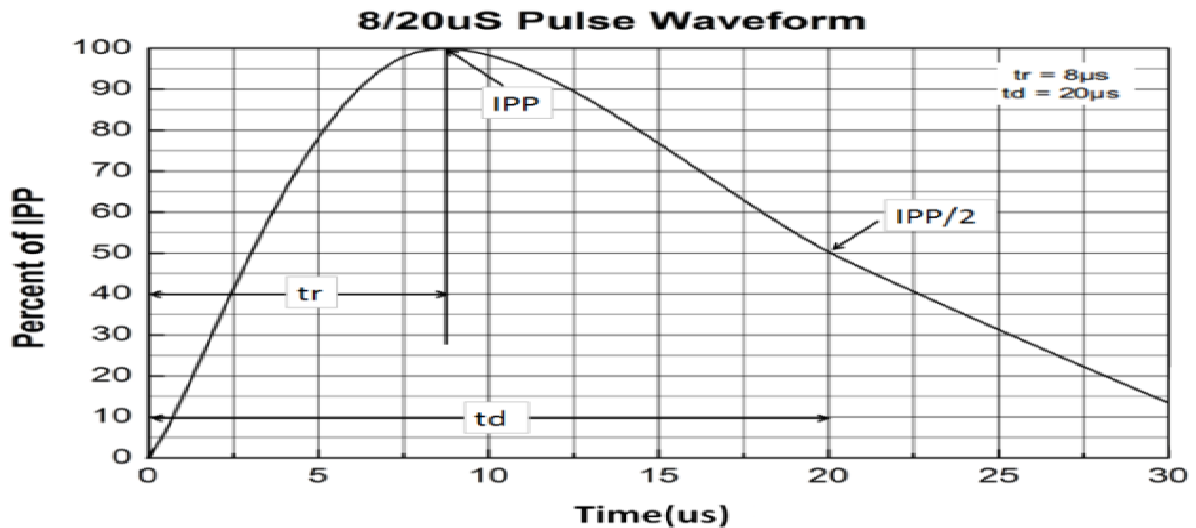
5. Electrical Characteristics (TA = 25 °C, unless otherwise specified)

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V_{DRM}	Standoff Voltage	T_A= 25 °C	-	-	5.0	V
V_{BR}	Breakdown Voltage	I_R = 1mA; TA = 25 °C	6	-	-	V
I_{DRM}	Reverse Leakage Current	V_{RWM} = 5V; TA = 25 °C	-	-	0.5	μA
V_C	Clamping Voltage	I_{PP}=5A, t_P =8/20μs	-	-	15	V
C_J	Junction Capacitance	V_{DC} = 0V, f = 1 MHz, Pin1,3,4,6 to Pin 2	-	-	0.8	pF
		V_{DC} = 0V, f = 1 MHz, Any I/O to I/O	-	-	0.4	pF

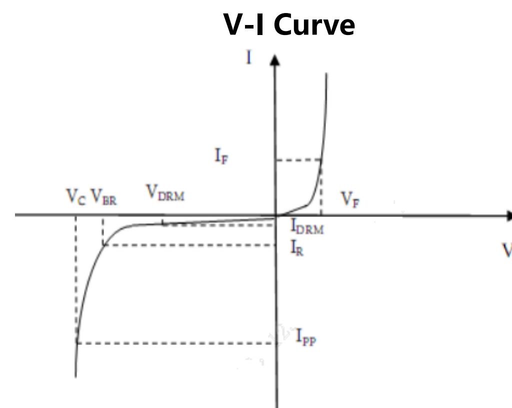
6. Thermal Characteristics

Symbol	Parameters	Value	Unit
T_J	Operating Junction Temperature Range	-55 to 150	°C
T_S	Storage Temperature Range	-55 to 150	°C

7 Typical Characteristics



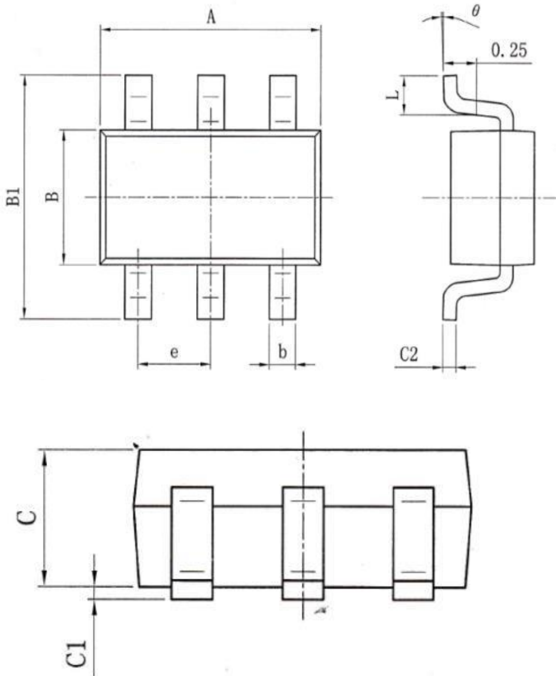
Parameters	Definition
V_C	Clamping Voltage
I_{PP}	Surge Waveform8/20us
V_{DRM}	Standoff Voltage
V_{BR}	Breakdown Voltage
I_R	Test Current
P_{PP}	Peak Pulse Power Dissipation



8 Environmental Characteristics

Testing Items	Technical Standards
High Temperature Reverse bias test	Temperature:150±5°C，Bias=80%V_{DRM}，Time=168H
High Temperature Storage test	Temperature:150°C，Time：168H
High-low Temperature Cycle Test	Temperature:From-55°C to125°C Dwell time：30min，100Cycles
High temperature& Humidity Test	Temperature：85°C Humidity：85% Time：168H
Pressure Cooker Test	Temperature：121°C，2atm.Humidity:100%,Time:24H
Resistance of soldering heat	Temperature:260±5°C, Time of dip soldering:10s, 3times

9. Package Outline Dimensions



REF	mm	inch
A	2.80~3.00	0.110~0.118
B	1.50~1.70	0.059~0.067
B1	2.65~3.05	0.104~0.120
C	1.00~1.20	0.039~0.047
C1	0.00~0.10	0.000~0.004
C2	0.08~0.20	0.003~0.008
L	0.30~0.60	0.012~0.024
b	0.30~0.50	0.012~0.020
e	0.95BSC	0.037BSC
θ	0°~8°	0°~8°

10. Soldering Parameters

Reflow Condition		Pb-Free Assembly
Pre-heat	-Temperature Min	+150°C
	-Temperature Max	+200°C
	-Time (Min to Max)	60-180 secs.
Average ramp up rate (Liquid us Temp (TL) to peak)		3°C/sec. Max
Ts(max) to TL - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature(TL)(Liquid)	+217°C
	-Temperature(tL)	60-150 secs.
Peak Temp (Tp)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (tp)		30 secs. Max
Ramp-down Rate		6°C/sec. Max
xTime 25°C to Peak Temp (TP)		8 min. Max
Do not exceed		+260°C