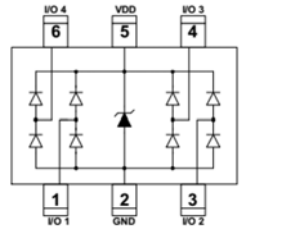
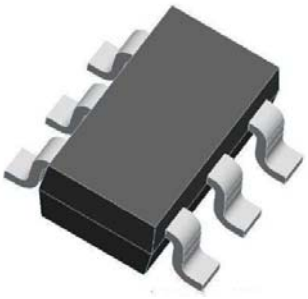
4-Line, Uni-directional, Ultra-low Capacitance, Transient Voltage Suppressor





SOT-23-6L

Features

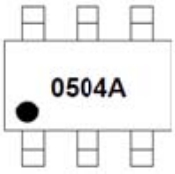
- Operating voltage: 5V
- Transient protection for each line according to
  IEC61000-4-2(ESD): ±20kV (contact)
  IEC61000-4-5(surge): 5A (8/20μs)
- Ultra low capacitance: Cj=0.65pF typ
- Ultra low leakage
- Low clamping voltage
- Up to 4 lines protects
- RoHS Compliant

Applications

- USB 2.0 Power and Data lines protection
- Digital Visual Interface (DVI)
- Monitors and Flat Panel Displays
- Video Graphic Cards
- Notebook and PC Computers

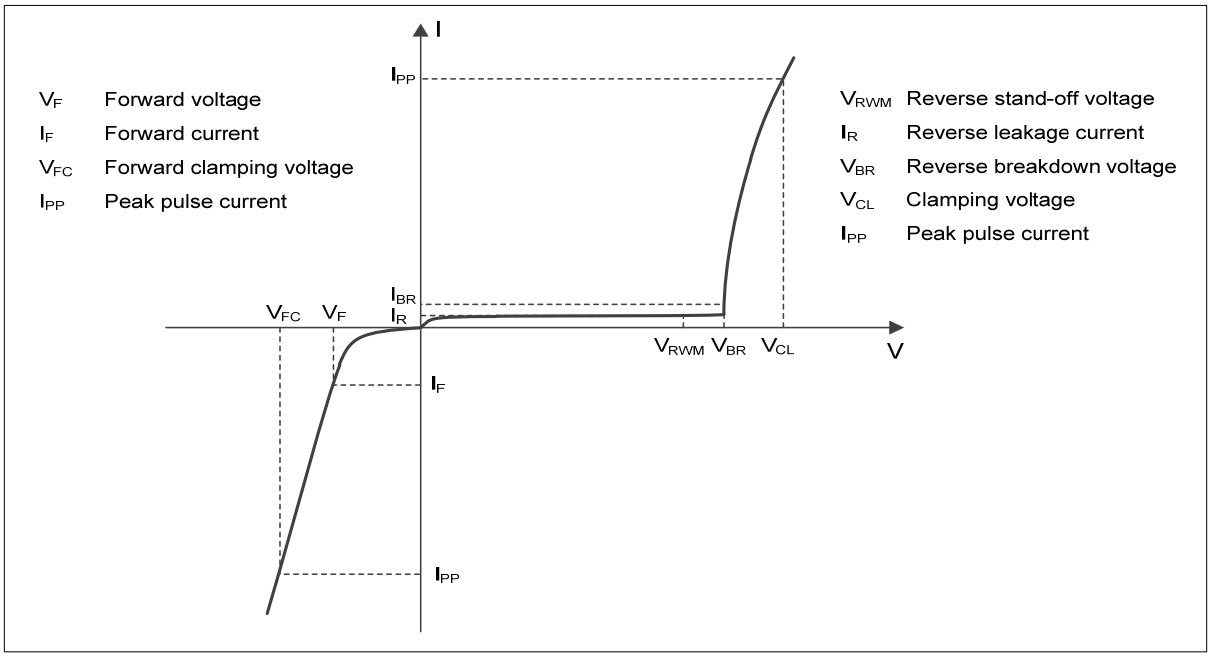
Mechanical Data

- Package: SOT-23-6L
- Lead Finish: Matte Tin
- Case Material: “Green” Molding Compound.
- Moisture Sensitivity: Level 1 per J-STD-020
- Marking Information: See Below



0504A = Device Marking Code
Dot denotes Pin1

■Definitions of electrical characteristics



■Maximum Ratings

PARAMETER	SYMBOL	LIMITS	UNIT
Peak pulse power (t_p = 8/20μs)	P_{pk}	75	W
Peak pulse current (t_p = 8/20μs)	I_{PP}	5	A
ESD according to IEC61000-4-2 air discharge	V_{ESD}	±25	KV
ESD according to IEC61000-4-2 contact discharge		±20	
Junction temperature	T_J	-55~125	℃
Storage temperature	T_{STG}	-55~150	℃

■Electrical Characteristics（T_a=25℃ Unless otherwise specified）

PARAMETER	Symbol	UNIT	Conditions	Min	Typ	Max
Reverse maximum working voltage	V_{RWM}	V	Any I/O pin to ground			5.0
Reverse leakage current	I_R	μA	V_{RWM} = 5.0V, any I/O pin to ground			0.5
Reverse breakdown voltage	$V_{(BR)}$	V	I_T = 1mA, any I/O pin to ground	6.0		
Clamping voltage	V_{CL}	V	I_{PP} = 1A, t_p = 8/20μs			10
		V	I_{PP} = 5A, t_p = 8/20μs			15
Junction capacitance	CJ	pF	V_R = 0V, f = 1MHz Any I/O pin to GND		0.65	0.8
			V_R = 0V, f = 1MHz Between I/O pins		0.3	0.4

Notes: I/O pins are Pin 1, 3, 4 and 6

■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(mg)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
ESDSLC0504S2	Approximate 15.85	3000	30000	120000	Tape & reel	7 reel

■ Characteristics (Typical)

Fig.1 8/20μs waveform per IEC61000-4-5

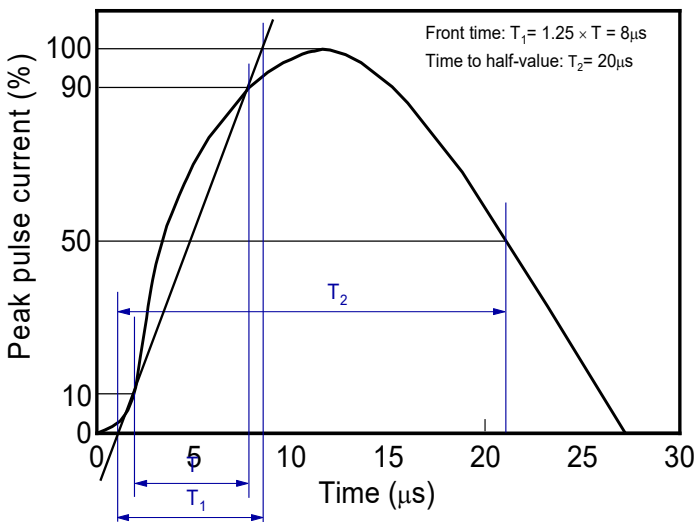


Fig.2 Contact discharge current waveform per IEC61000-4-2

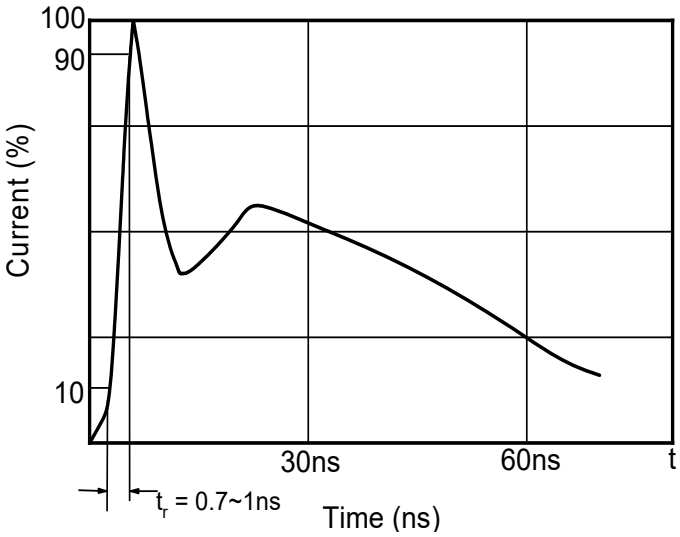


Fig.3 Clamping voltage vs. Peak pulse current

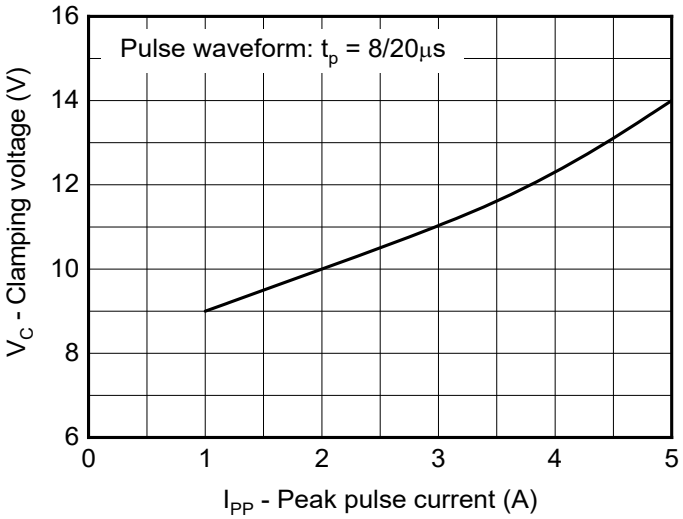


Fig.4 Capacitance vs. Reverse voltage

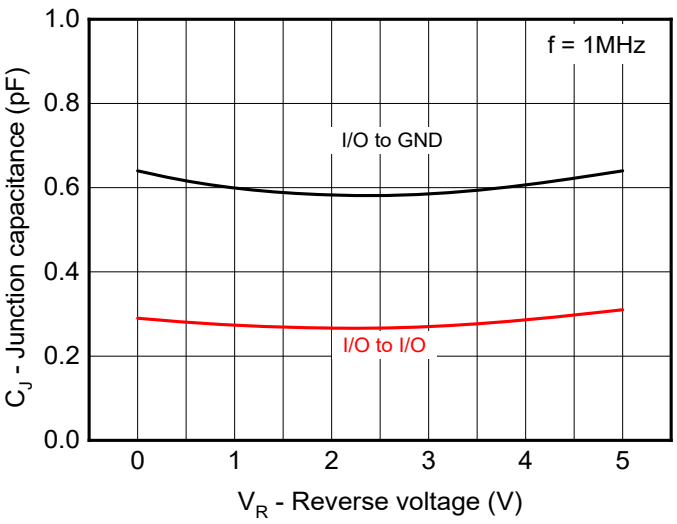


Fig.5 Non-repetitive peak pulse power vs. Pulse time

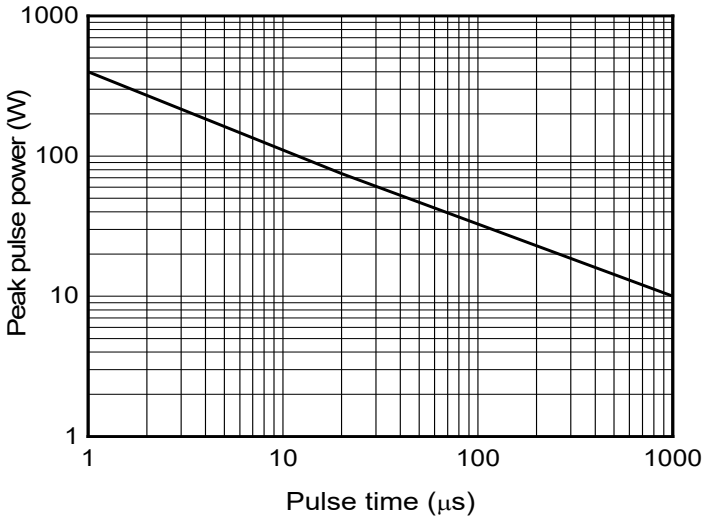


Fig.6 Power derating vs. Ambient temperature

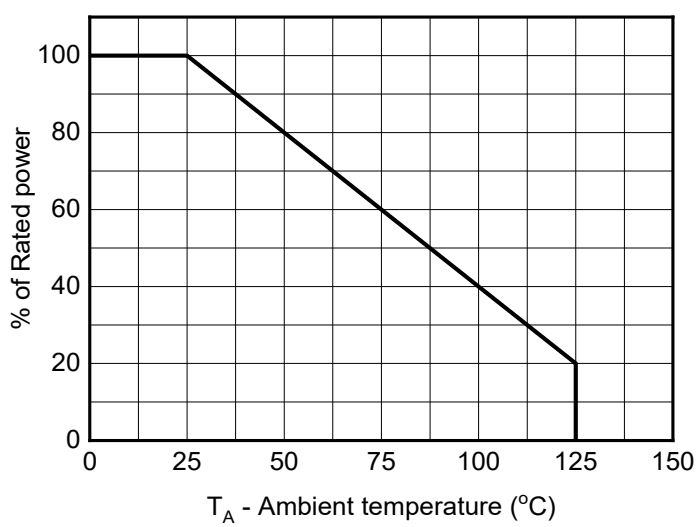
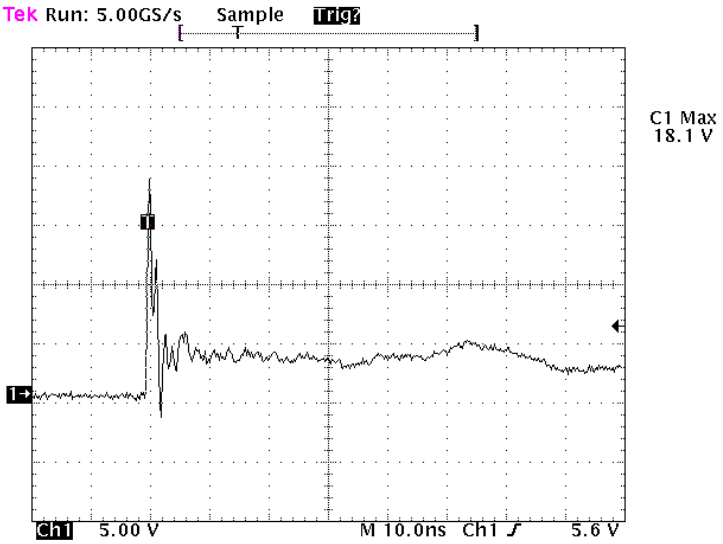
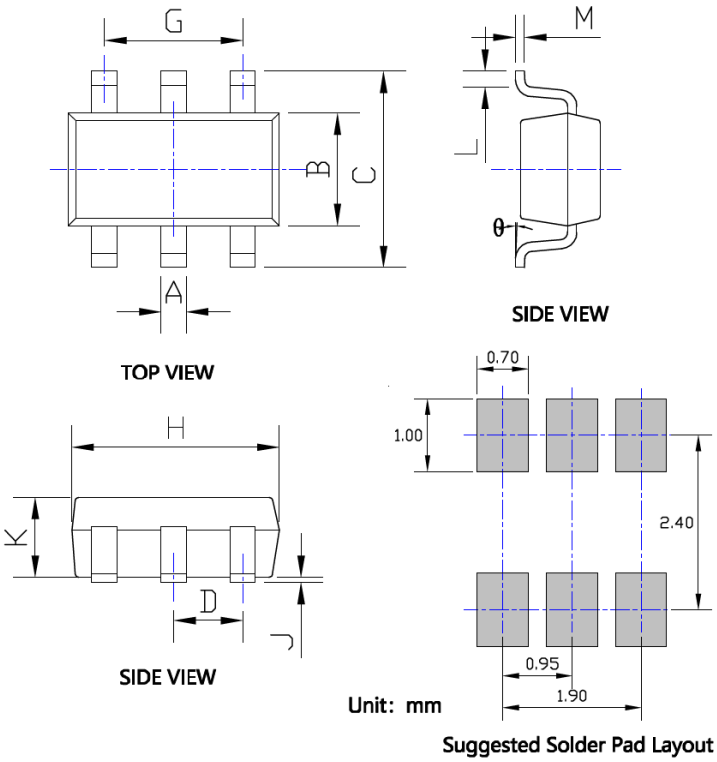


Fig.7 ESD clamping
(+8kV contact discharge per IEC61000-4-2)



Note：Data is taken With a 10x attenuator

■ Outline Dimensions



DIMENSIONS				
SYMBOL	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.012	0.020	0.300	0.500
B	0.059	0.067	1.500	1.700
C	0.104	0.116	2.650	2.950
D	0.037BSC		0.950BSC	
G	0.075BSC		1.900BSC	
H	0.111	0.119	2.820	3.020
J	0.000	0.004	0.000	0.100
K	0.041	0.045	1.050	1.150
L	0.012	0.024	0.300	0.600
M	0.004	0.008	0.100	0.200
θ	0°	8°	0°	8°

Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.

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