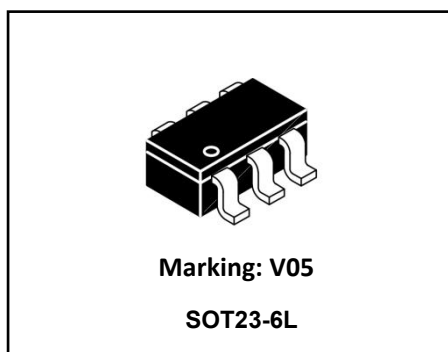
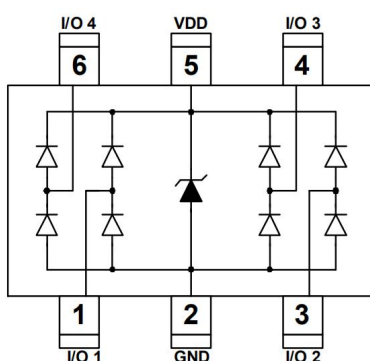


4-CHANNEL LOW CAPACITANCE ESD PROTECTION DIODES ARRAY



Features

- Protects 4 I/O Lines
- Low Working Voltage: 5 V
- Low Clamping Voltage
- Low Capacitance: 0.6pF (I/O to GND)
- Response time is typically < 1 ns
- IEC61000-4-2 (ESD) ±20 kV (air), ±15 kV (contact)
- IEC61000-4-5 (Surge) 4 A (I/O to GND)
- IEC61000-4-5 (Surge) 17 A (VDD to GND)
- RoHS compliant



Pin Configuration

Applications

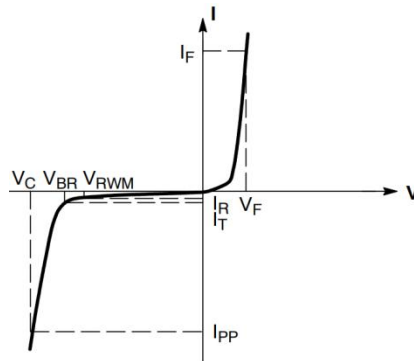
- USB 3.0
- HDMI 1.3
- SATA and eSATA
- DVI
- IEEE 1394
- PCI Express
- Portable Electronics
- Notebooks

Absolute maximum ratings

Parameter	Symbol	Rating	Unit
Peak pulse power ($t_p = 8/20\mu s$)	P_{pk}	84	W
Peak pulse current ($t_p = 8/20\mu s$)	I_{pp}	6	A
ESD according to IEC61000-4-2 air discharge	V_{ESD}	±20	kV
ESD according to IEC61000-4-2 contact discharge		±15	
Junction temperature	T_J	125	°C
Operation temperature	T_{OP}	-40 to 85	°C
Storage temperature	T_{STG}	-55 to 150	°C
Lead temperature	T_L	260	°C

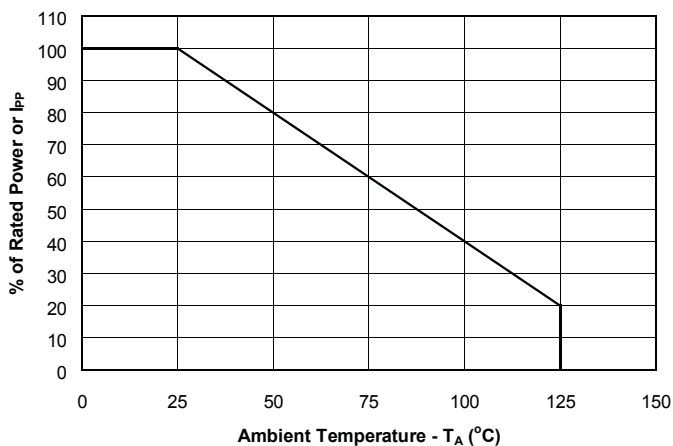
Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

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
I_F	Forward Current
V_F	Forward Voltage @ I_F
P_{pk}	Peak Power Dissipation
C	Max. Capacitance @ $V_R = 0$ and $f = 1.0$ MHz

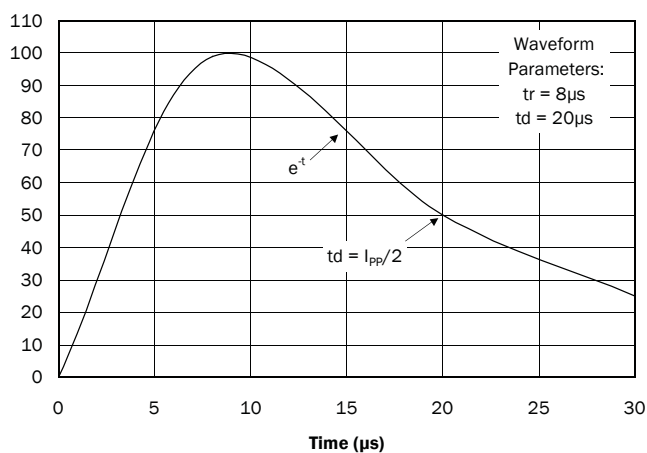


Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V_{RWM}	--	--	5	V	
Breakdown Voltage	V_{BR}	6.5	--	8.5	V	$I_T=1\text{mA}$
Leakage Current I_{Leak}	I_R	--	--	100	nA	$V_{RWM}=5\text{V}$
Clamping Voltage (I/O-GND)	V_C	--	--	13	V	$I_{PP}=4\text{A}, T_p=8/20\mu\text{s}$
Clamping Voltage (V_{DD} -GND)	V_C	--	--	19	V	$I_{PP}=17\text{A}, T_p=8/20\mu\text{s}$
Junction Capacitance (I/O to GND)	C_J	--	0.6	0.7	pF	$V_R=0\text{V}, f=1\text{MHz}$
Junction Capacitance (I/O to I/O)	C_J	--	0.3	0.4	pF	$V_R=0\text{V}, f=1\text{MHz}$

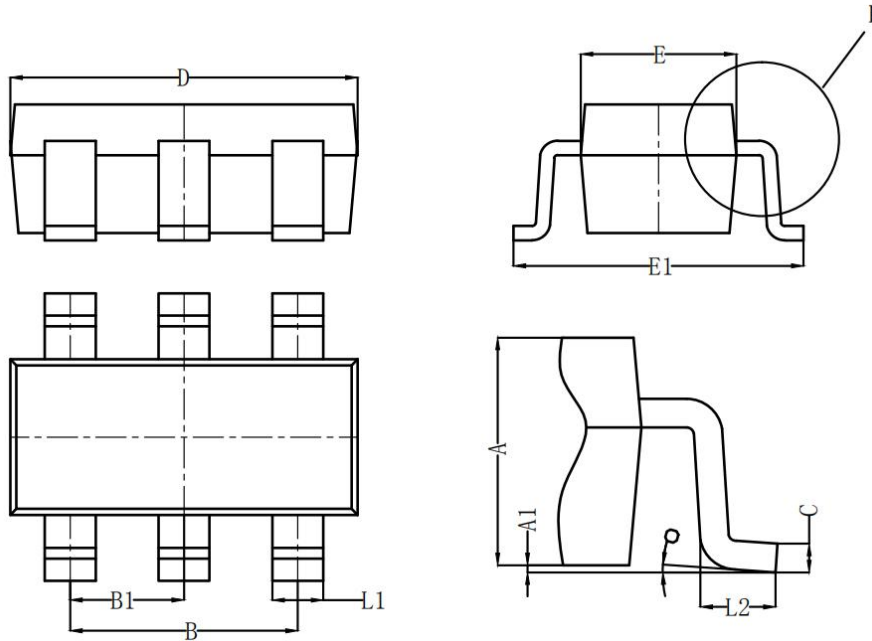


Power Derating Curve



Pulse Waveform

SOT23-6L Package outline



Symbol	Dimensions (mm)		
	Min	Typ	Max
A	1.050	1.100	1.150
A1	0.000	0.050	0.100
L1	0.300	0.400	0.500
C	0.100	0.150	0.200
D	2.820	2.920	3.020
E	1.500	1.600	1.700
E1	2.650	2.800	2.950
B	1.800	1.900	2.000
B1	0.950 Typ		
L2	0.300	0.450	0.600
O	0°	4°	8°