

RoHS Device
Halogen Free

Features

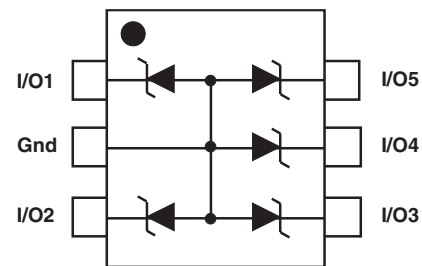
- Solid-state silicon -avalanche technology
- 250 Watts Peak Pulse Power per Line ($t_p=8/20\mu s$)
- Low operating and clamping voltages
- Protects five I/O lines
- Working Voltage: 5 V
- Low Leakage



SOT23-6

Mechanical Characteristics

- SOT-23-6 package
- Molding compound flammability rating:
UL 94V-0
- Marking : Marking Code
- Packaging: Tape and Reel



Applications

- Cell phone Handsets & Accessories
- Personal Digital Assistants (PDAs)
- Notebook , Laptop, and Palmtop Computers
- Portable Instrumentation
- Digital Cameras
- MP3 Player

IEC COMPATIBILITY (EN61000-4)

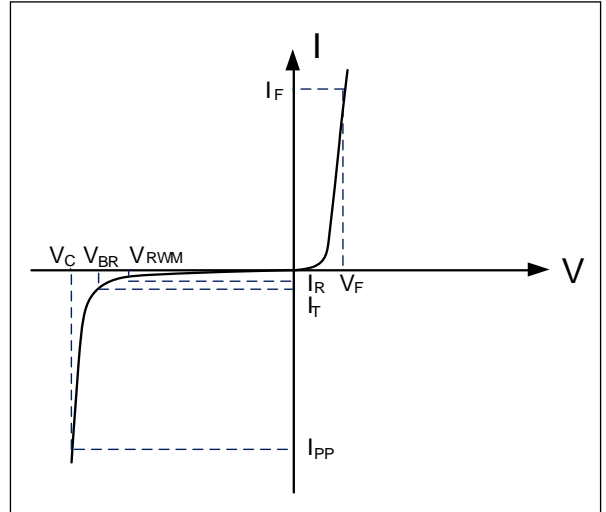
- IEC 61000 -4-2 (ESD) $\pm 30kV$ (air), $\pm 30kV$ (contact)
- IEC 61000 -4-4 (EFT) 40A (5/50ns)
- IEC 61000 -4-5 (Lightning) 14A(8/20us)

Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu s$)	P_{PP}	250	Watts
Peak Forward Voltage ($I_F = 1A, t_p=8/20\mu s$)	V_{FP}	1.5	V
Operating Temperature	T_J	-55 to + 125	$^{\circ}C$
Storage Temperature	T_{STG}	-55 to +150	$^{\circ}C$

Electrical Parameters (T=25 °C)

Symbol	Parameter
I_{PP}	Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Reverse Stand Off Voltage
I_R	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



Electrical Characteristics

Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{RWM}				5.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	6.1			V
Reverse Leakage Current	I_R	$V_{RWM}=5V, T=25^{\circ}C$			0.5	μA
Peak Pulse Current	I_{PP}	$t_p=8/20\mu s$			14	A
Clamping Voltage	V_C	$I_{PP}=1A, t_p=8/20\mu s$			9.5	V
Clamping Voltage	V_C	$I_{PP}=14A, t_p=8/20\mu s$		15	17	V
Junction Capacitance	C_j	Between I/O pins and Ground $V_R=0V, f=1MHz$		90	100	pF

Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

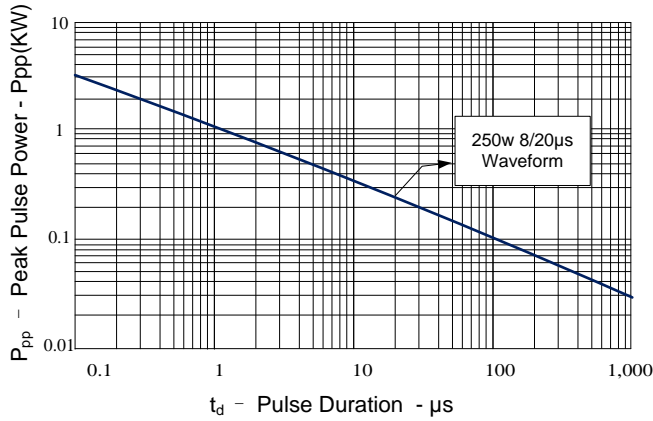


Figure 2: Power Derating Curve

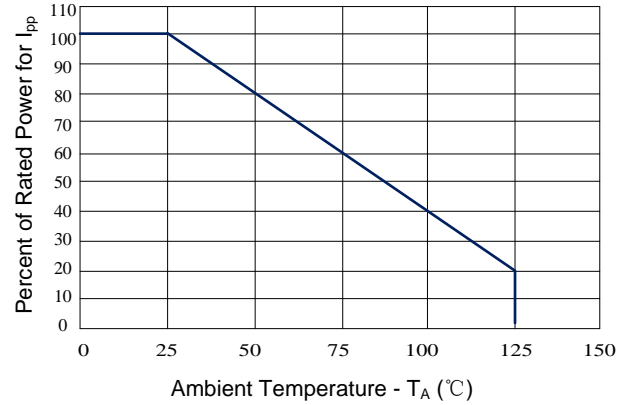


Figure 3: Clamping Voltage vs. Peak Pulse Current

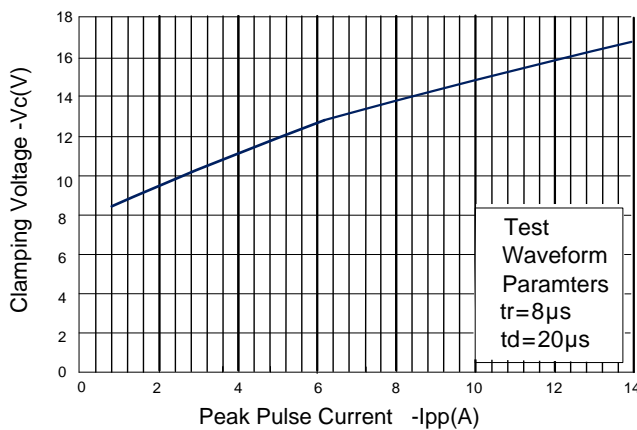


Figure 4: Normalized Junction Capacitance vs. Reverse Voltage

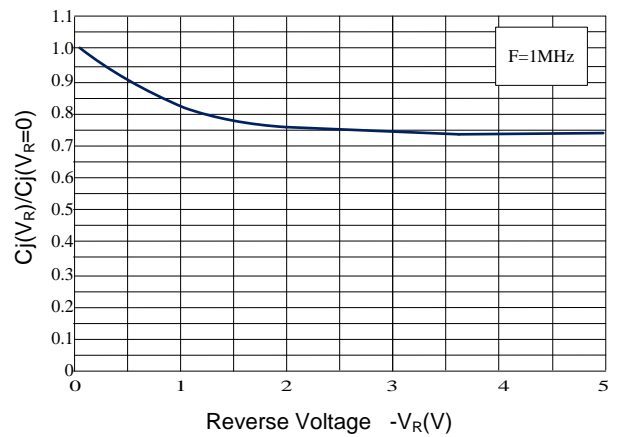


Figure 5: Pulse Waveform

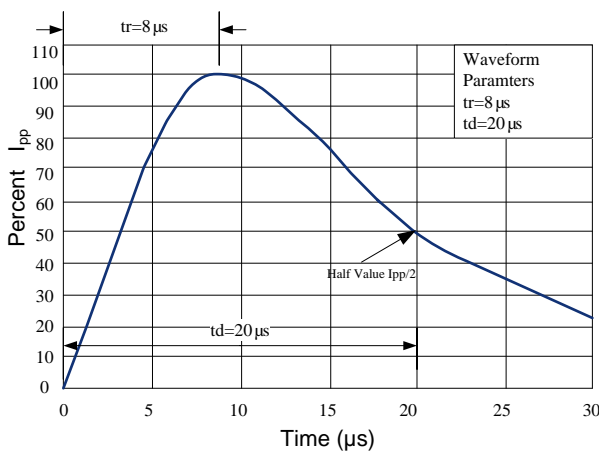
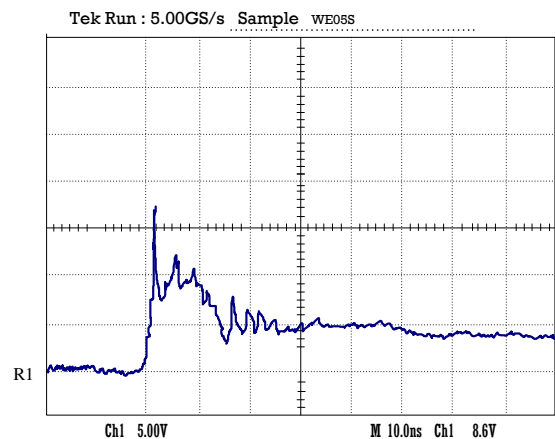
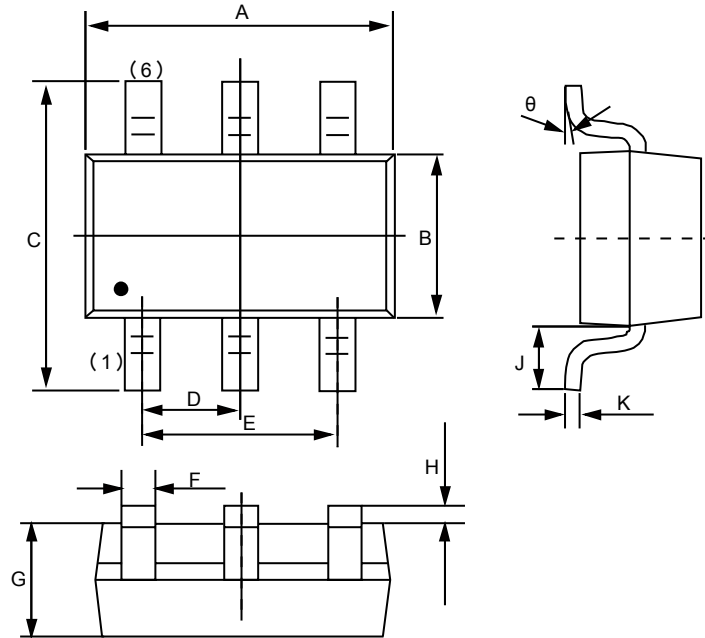


Figure 6: ESD Clamping(8kV Contact per IEC 61000-4-2)



Product dimension (SOT-23-6L)



Dim	Millimeters		Inches	
	MIN	MAX	MIN	MAX
A	2.820	3.020	0.111	0.119
B	1.500	1.700	0.059	0.067
C	2.650	2.950	0.104	0.116
D	0.950 (BSC)		0.037 (BSC)	
E	1.800	2.000	0.071	0.079
F	0.300	0.500	0.012	0.020
G	1.050	1.150	0.041	0.045
H	0.000	0.100	0.000	0.004
J	0.45	0.60	0.0180	0.0236
K	0.100	0.200	0.004	0.008
θ	0°	8°	0°	8°