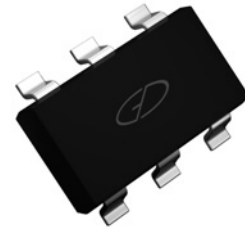
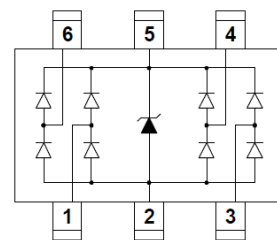


**Features**

- 400 watts peak pulse power ( $t_p = 8/20\mu s$ )
- SOT-23-6L package
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance(1.5pF typical I/O to I/O)
- ESD Protection for high-speed data lines to:  
 IEC 61000-4-2  $\pm 30KV$  contact  $\pm 30KV$  air  
 IEC 61000-4-4 (EFT) 40A (5/50ns)  
 IEC 61000-4-5 (Lightning) 25A (8/20 $\mu s$ )
- RoHS compliant



Package: SOT-23-6L



Schematic Diagram

**Applications**

- 10/100/1000 Ethernet
- Unified Display Interface (UDI)
- Digital visual interface (DVI)
- USB2.0
- High speed serial interfaces

**Absolute Maximum Ratings** ( $T_A = 25^\circ C$  unless otherwise specified)

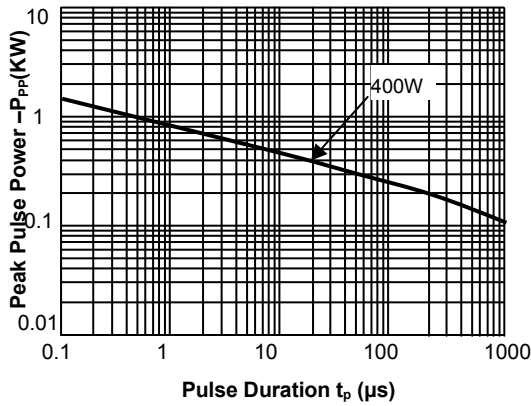
Parameter	Symbol	Value	Unit
Peak Pulse Power ( $t_p=8/20\mu S$ )	$P_{PP}$	400	W
Peak Pulse Current ( $t_p = 8/20\mu S$ )	$I_{PP}$	25	A
Junction Temperature	$T_J$	-55 to +125	$^\circ C$
Storage Temperature	$T_{STG}$	-55 to +150	$^\circ C$

**Electrical Characteristics** ( $T_A = 25^\circ C$  unless otherwise specified)

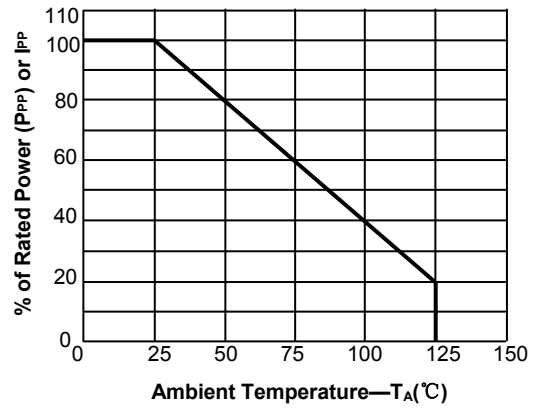
Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse Stand-off Voltage	$V_{RWM}$		-	-	5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	6.0	6.8	10	V
Reverse Leakage Current	$I_R$	$V_R=5V$	-	0.1	0.5	$\mu A$
Clamping Voltage (surge)	$V_C$	$I_{PP}=25A, T_p=8/20\mu S$	-	14	16	V
Junction Capacitance	$C_J$	$V_R=0V, f=1MHz, I/O$ to GND	-	3.5	5.0	pF
	$C_J$	$V_R=0V, f=1MHz, I/O$ to I/O	-	1.5	2.5	pF

**Typical Characteristic Curves**

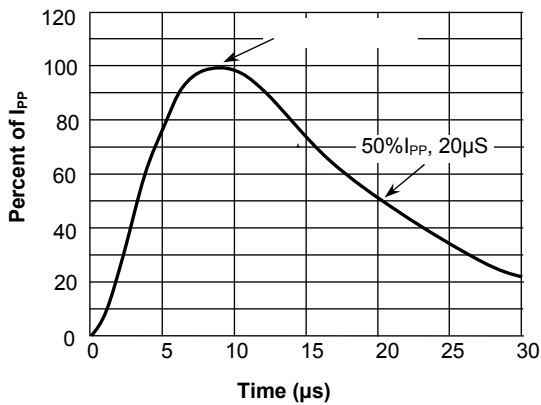
**Fig.1 Peak Pulse Power Rating Curve**



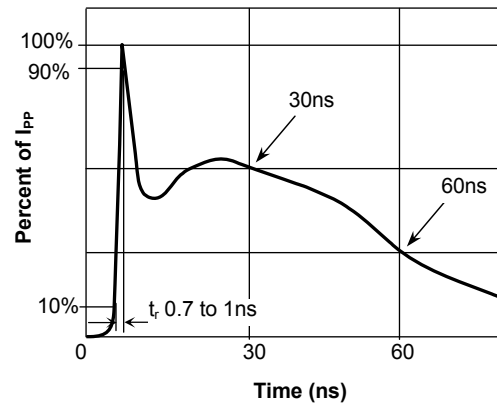
**Fig.2 Pulse Derating Curve**



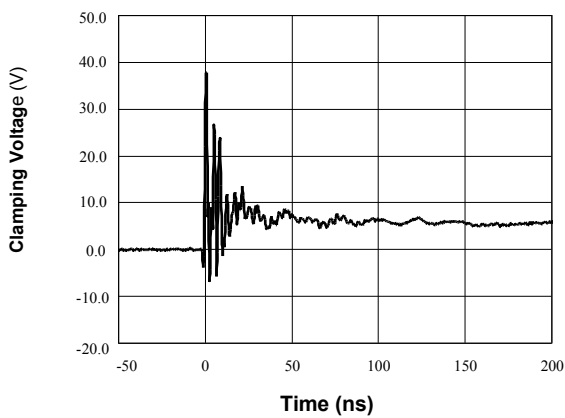
**Fig.3 Pulse Waveform-8/20μs**



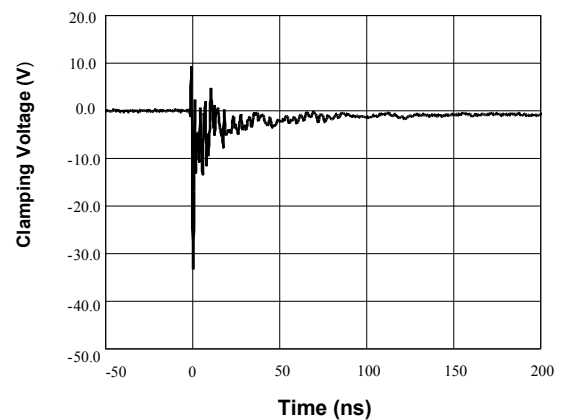
**Fig.4 Pulse Waveform-ESD(IEC61000-4-2)**



**Fig.5 ESD Clamping of I/O to GND (+8kV Contact per IEC 61000-4-2)**

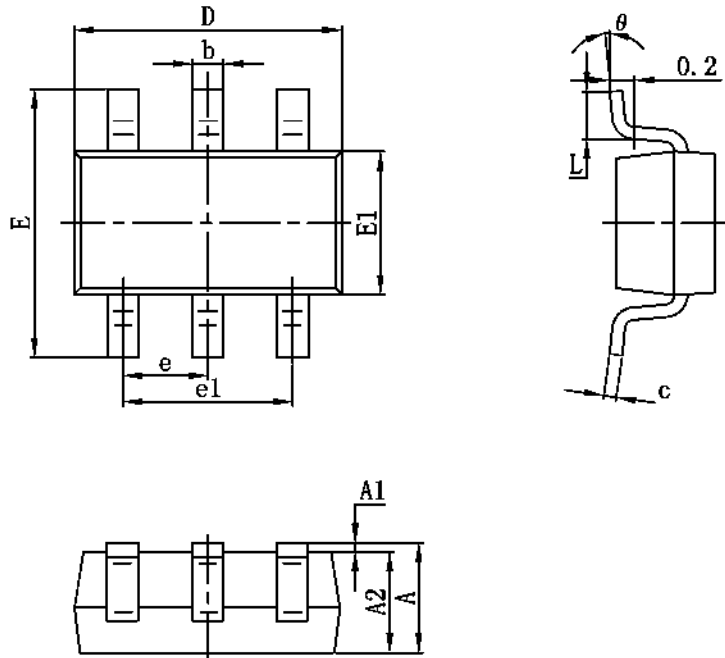


**Fig.6 ESD Clamping of I/O to GND (-8kV Contact per IEC 61000-4-2)**



**Package Outline Dimensions**

**SOT-23-6L**



Symbol	Dimensions in millimeters		Dimensions in inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E1	1.500	1.700	0.059	0.067
E	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°

**Order Information**

Device	Package	Marking	Quantity	HSF Status
GSER5U015	SOT-23-6L	S514P	3,000pcs / Reel	RoHS Compliant