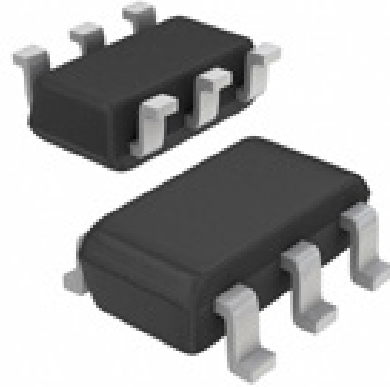


### Features

- 500Watts peak pulse power ( $t_p = 8/20\mu s$ )
- SOT23-6 package
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance ( $C_j=0.7pF$  typ.)
- Protection one data/power line to:
- IEC 61000-4-2  $\pm 30kV$  contact  $\pm 30kV$  air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 22A (8/20 $\mu s$ )



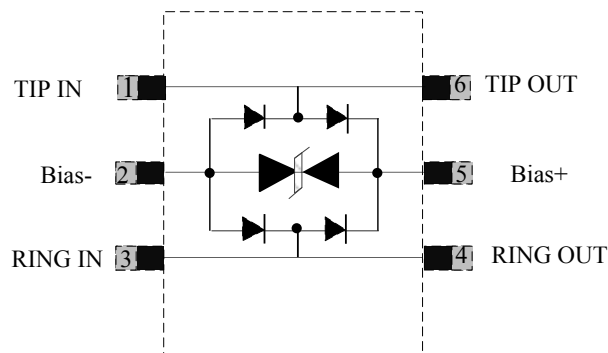
### Applications

- ADSL,ADSL2+
- VDSL2, VDSL2+
- G.fast

### Mechanical Data

- SOT23-6 package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

### Schematic & PIN Configuration



### Absolute Maximum Rating

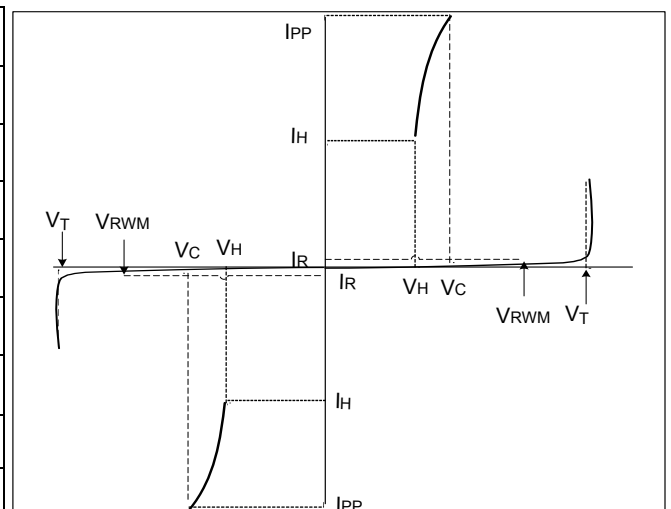
Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p = 8/20\mu s$ )	$P_{PP}$	500	Watts
Peak Pulse Current ( $t_p = 8/20\mu s$ ) (note1)	$I_{PP}$	22	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	$V_{ESD}$	30 30	kV
Lead Soldering Temperature	$T_L$	260(10seconds)	°C
Junction Temperature	$T_J$	-55 to + 125	°C
Storage Temperature	$T_{stg}$	-55 to + 125	°C

### Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	$V_{RWM}$				8.0	V
Holding Voltage	$V_H$	$I_T = I_H$		3.0		V
Holding Current	$I_H$		50			mA
Reverse Leakage Current	$I_R$	$V_{RWM} = 8V, T = 25^\circ C$			500	nA
Clamping Voltage	$V_C$	$I_{PP} = 22A, t_p = 8/20\mu s$		25		V
Trigger Voltage	$V_T$			13	15	V
Junction Capacitance	$C_j$	$V_R = 0V, f = 1MHz$ Line to Line		0.7		pF

### Electrical Parameters (TA = 25°C unless otherwise noted)

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

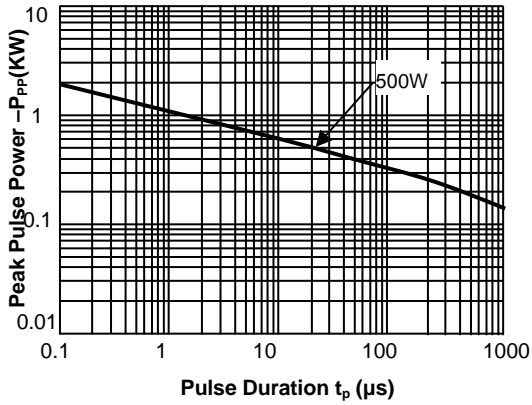


Note: 8/20μs pulse waveform.

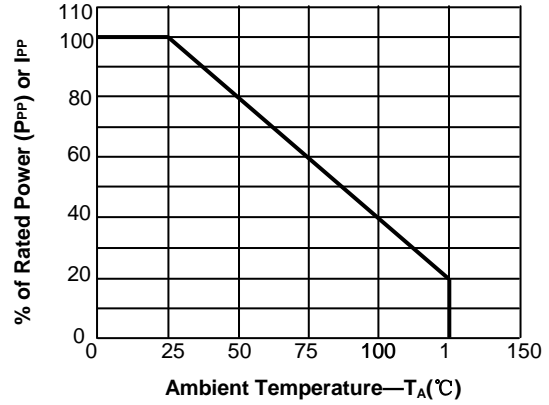


**Typical Characteristic Curves**

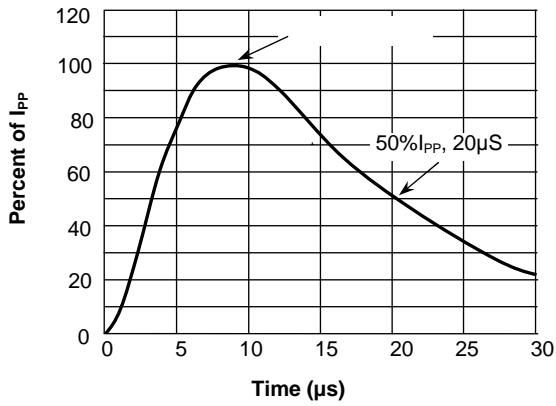
**Fig.1 Peak Pulse Power Rating Curve**



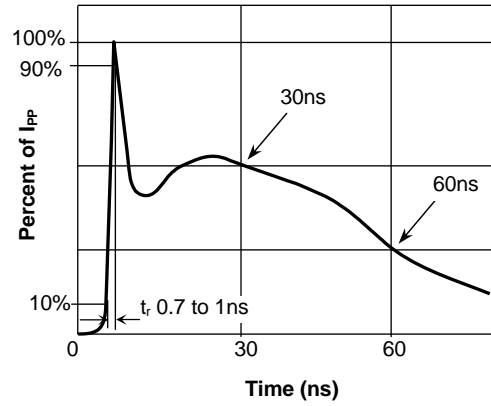
**Fig.2 Pulse Derating Curve**



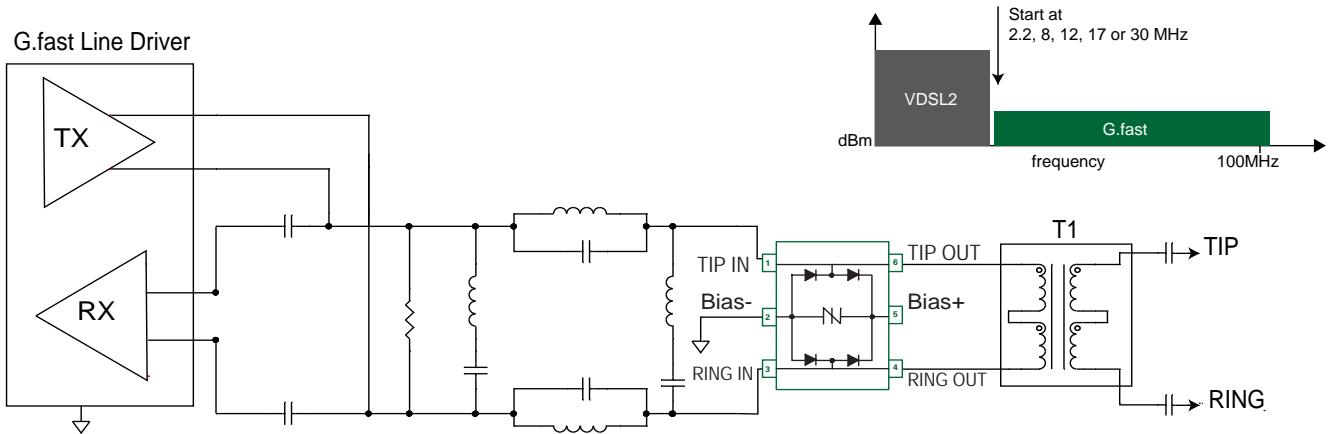
**Fig.3 Pulse Waveform-8/20μs**



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



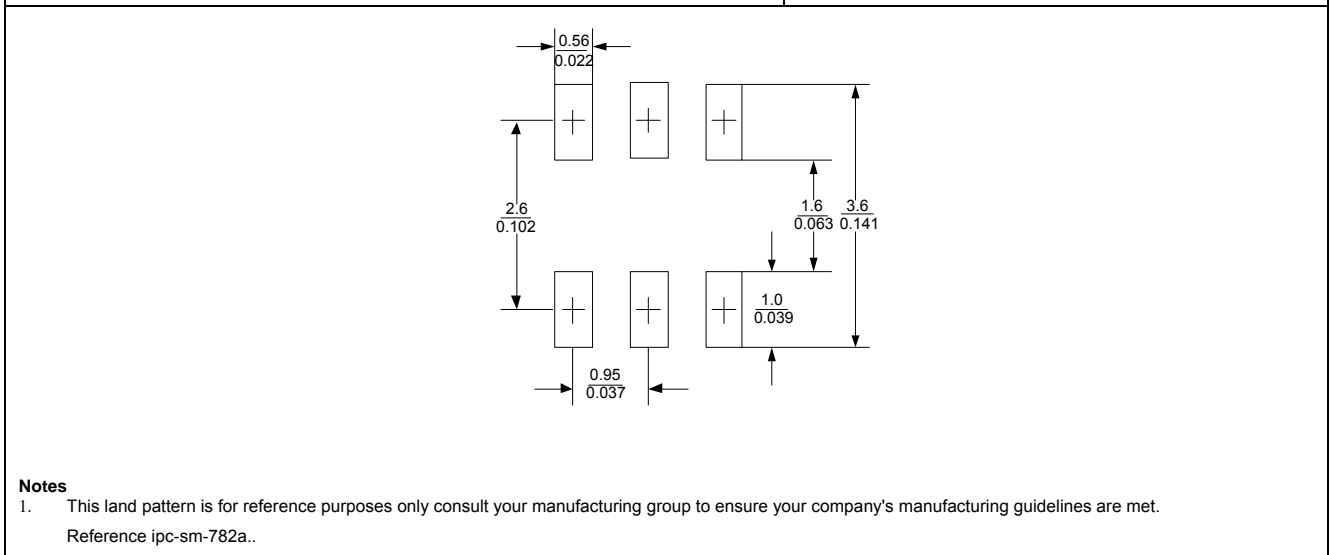
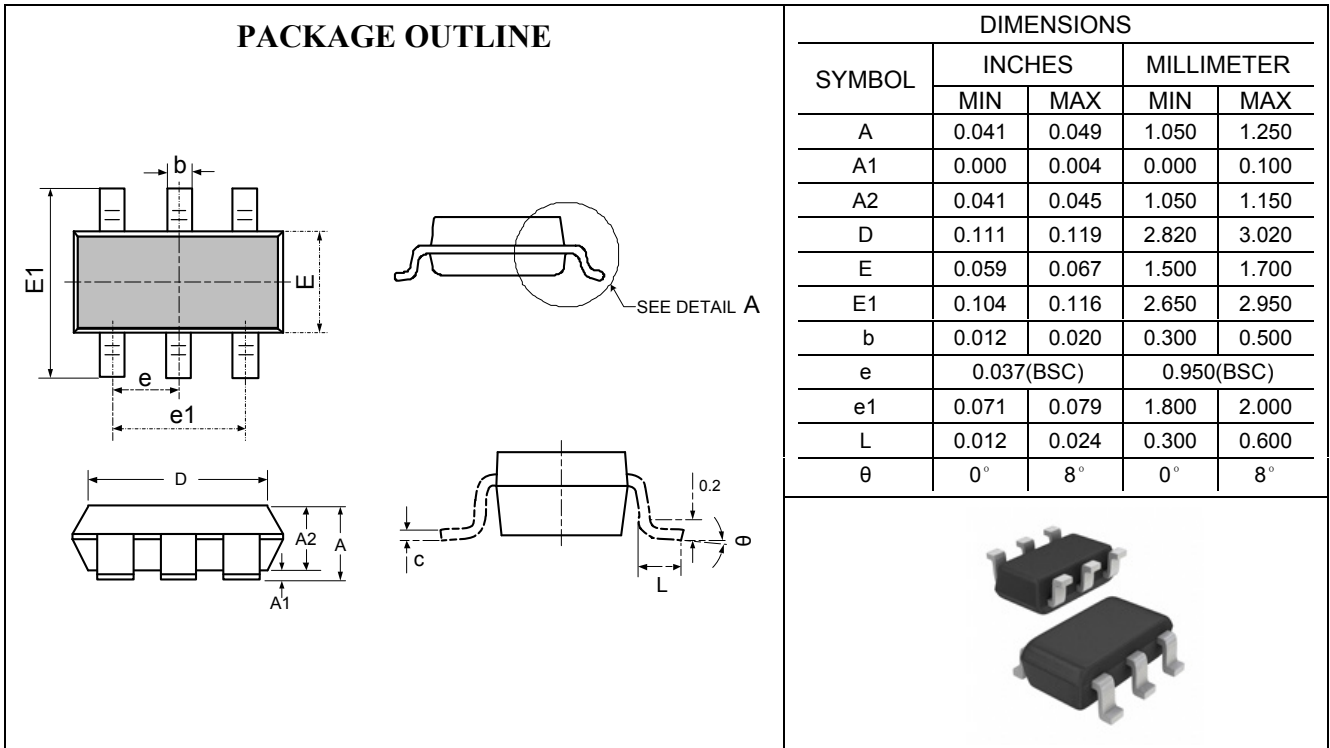
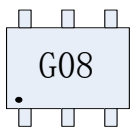
**Application**



**Fig.5 G.fast protection**

The “Bias -” lead can be connected to the line driver ground with the “Bias + ” lead left open so this solution provides both differential and common mode protection. Both “Bias -” and “Bias +” leads can be left floating for differential only protection and finally for capacitance variance sensitive applications, the “Bias -” and “Bias +” leads may have the appropriate polarity voltage (< VDRM) applied to further minimize any negative capacitance effects.



**Outline Drawing – SOT23-6**

**Marking**

**Ordering information**

Order code	Package	Base qty	Delivery mode
RLST236A082LC	SOT23-6	3k	Tape and reel

