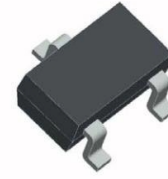
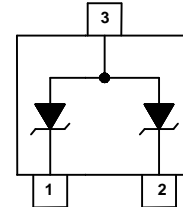


**Features**

- | 300 Watts Peak Pulse Power per Line (tp = 8/20µs)
- | Working voltages: 12V
- | Low Leakage Current
- | Low operating and clamping voltages
- | Lead Free/RoHS compliant
- | Solid-state silicon avalanche technology
- | Provides ESD protection to IEC61000-4-2(ESD): ±25kV (air discharge), ±25kV (contact discharge)



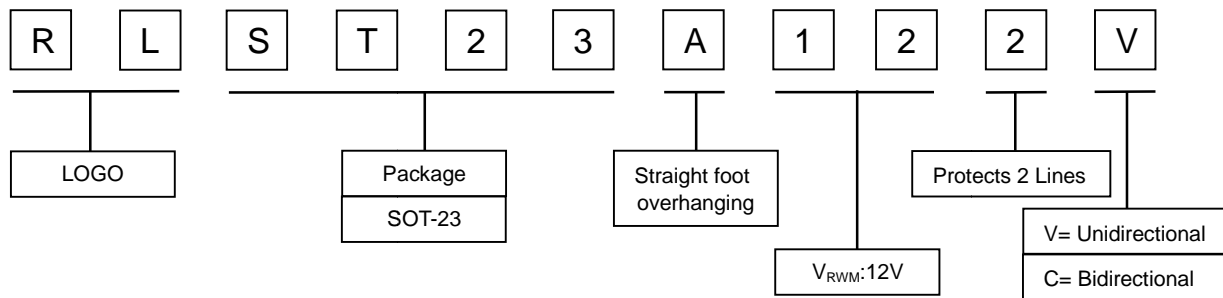
**Electrical symbol**



**Applications**

- | High-Speed data lines
- | Cellular handsets AND accessories
- | Universal Serial Bus (USB) port protection
- | Portable instrumentation
- | LAN/WAN equipment
- | Peripherals

**Part Number Code**



**Absolute Maximum Rating**

Rating	Symbol	Value	Units
Peak Pulse Power (tp =8/20µs)	P <sub>PP</sub>	300	Watts
ESD Voltage (Contact)	V <sub>ESD</sub>	±25	kV
ESD Voltage (Air)	V <sub>ESD</sub>	±25	kV
Lead Soldering Temperature	T <sub>L</sub>	260 (10 sec.)	°C
Storage Temperature	T <sub>STG</sub>	-55 to 150	°C
Operating Temperature Range	T <sub>OP</sub>	-55 to 150	°C

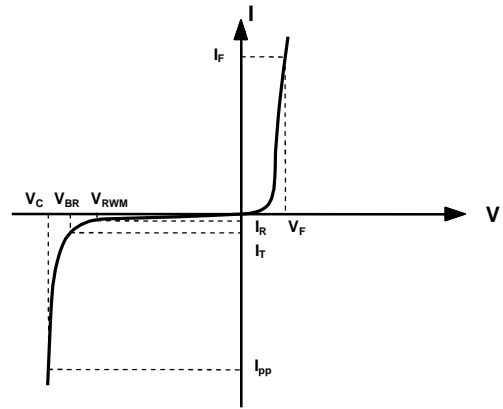
**Electrical Characteristics (@ 25°C Unless Otherwise Specified)**

Type Number	Reverse Stand-Off Voltage	Minimum Breakdown Voltage	Peak Pulse Voltage @8/20µS	V <sub>C</sub> @8/20µS		Reverse Leakage @V <sub>RWM</sub>	Typical Capacitance
	V <sub>RWM</sub>	V <sub>BR</sub> @1mA	V <sub>C</sub> @10A	(max.)	@I <sub>PP</sub>	I <sub>R</sub> @V <sub>RWM</sub>	DC=0V C <sub>J</sub> @ 1 MHz
	V	V	V	V	A	µA	pF
RLST23A122V	12	13.3	30	32	12	1.0	90



**Electrical Parameters (T=25°C)**

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 @ $I_F$



**Electrical Characteristic Curves**

Fig 1.  $V_C$  --  $I_{pp}$

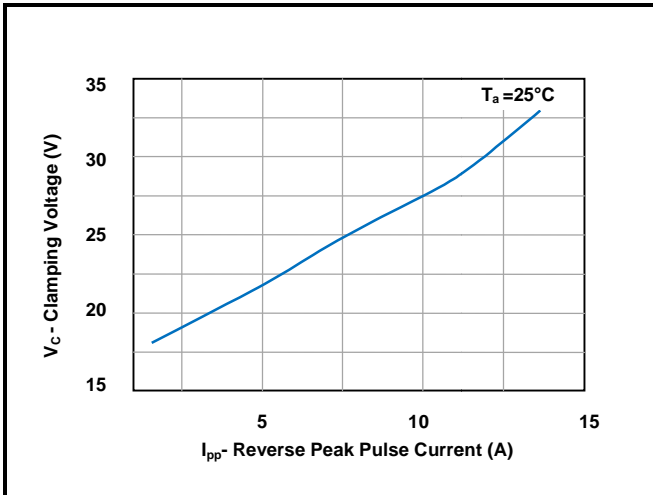
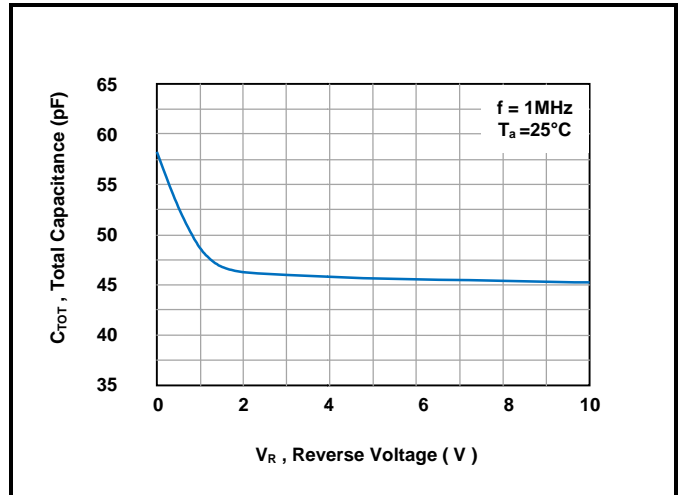
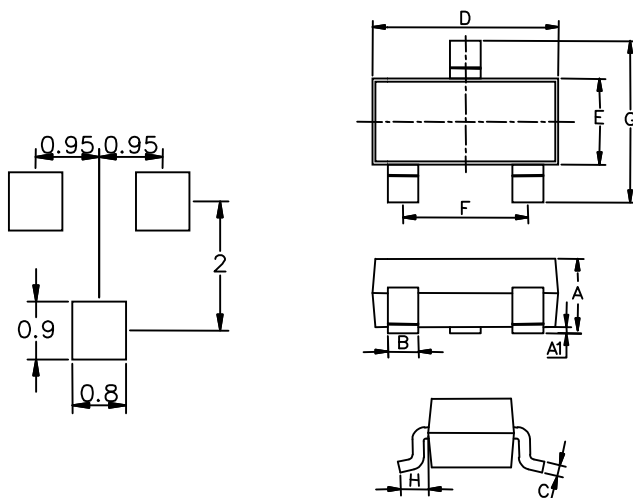


Fig 2.  $C_{TOT}$  --  $V_R$



**Dimensions & Recommended soldering footprint(mm)**

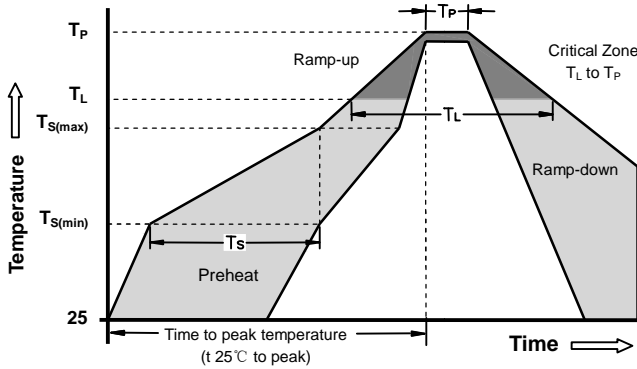


DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	0.89	1.11	0.035	0.044
A1	0.013	0.100	0.0005	0.004
B	0.37	0.50	0.015	0.018
C	0.085	0.177	0.0034	0.0070
D	2.80	3.04	0.110	0.114
E	1.20	1.40	0.047	0.051
F	1.78	2.04	0.070	0.075
G	2.10	2.64	0.083	0.094
H	0.35	0.69	0.014	0.021



Part Number	Marking	Component package	Quantity	Reel Size	Molding compound flammability rating	Lead Finish
RLST23A122V	12C	SOT-23	3000	7 inch	UL 94V-0	Lead Free

**Soldering Parameters - Reflow Soldering (Surface Mount Devices)**



Reflow Condition		Pb - Free assembly
Pre Heat	-Temperature Min ( $T_{s(min)}$ )	150°C
	-Temperature Max ( $T_{s(max)}$ )	200°C
	- Time (min to max) ( $t_s$ )	60 -180 Seconds
Average ramp up rate ( Liquids Temp $T_L$ to peak)		3°C/second max
$T_{s(max)}$ to $T_L$ - Ramp-up Rate		3°C/second max
Reflow	- Temperature ( $T_L$ ) (Liquids)	217°C
	- Time (min to max) ( $t_s$ )	60 -150 Seconds
Peak Temperature ( $T_P$ )		260 +0/-5°C
Time within 5°C of actual peak Temperature ( $t_p$ )		20 - 40 Seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature ( $T_P$ )		8 minutes Max
Do not exceed		280°C

