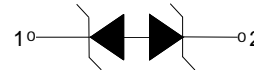


**Features**

- I Working voltages: 5V
- I Low Leakage Current
- I Low operating and clamping voltages
- I Lead Free/RoHS compliant
- I Solid-state silicon avalanche technology
- I Provides ESD protection to IEC61000-4-2(ESD): ±15kV (air discharge), ±8kV (contact discharge)



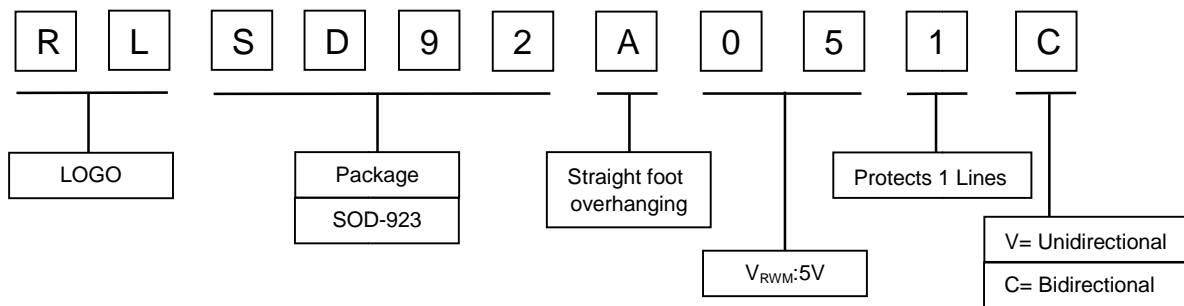
**Electrical symbol**



**Applications**

- I Cell Phone Handsets and Accessories
- I Microprocessor based equipment
- I Personal Digital Assistants (PDA's)
- I Notebooks, Desktops, and Servers
- I Portable Instrumentation
- I Pagers Peripherals

**Part Number Code**



**Absolute Maximum Rating**

Rating	Symbol	Value	Units
ESD Voltage (Contact)	V <sub>ESD</sub>	±8	kV
ESD Voltage (Air)	V <sub>ESD</sub>	±15	kV
Lead Soldering Temperature	T <sub>L</sub>	260 (10 sec.)	°C
Maximum junction temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>STG</sub>	-55 to 150	°C
Power Dissipation	P <sub>D</sub>	150	mW

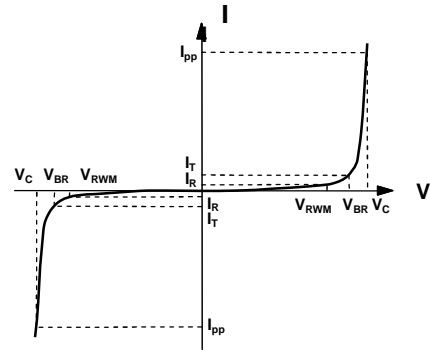
**Electrical Characteristics (@ 25°C Unless Otherwise Specified)**

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> @7A	(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
RLSD92A051C	5	6.0	9	9	7	1.0	13.5



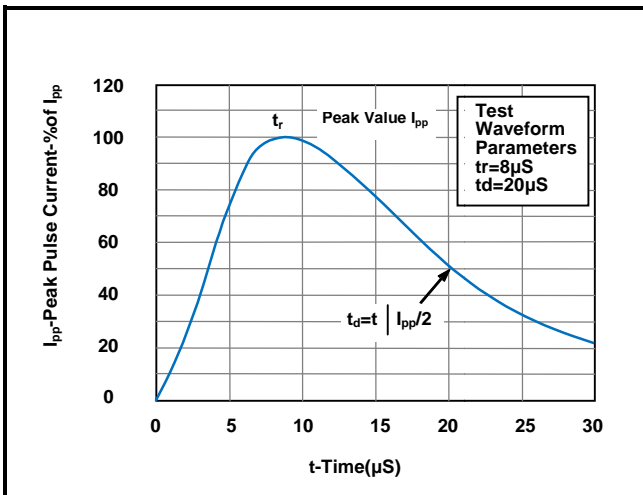
**Electrical Parameters (T=25°C)**

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

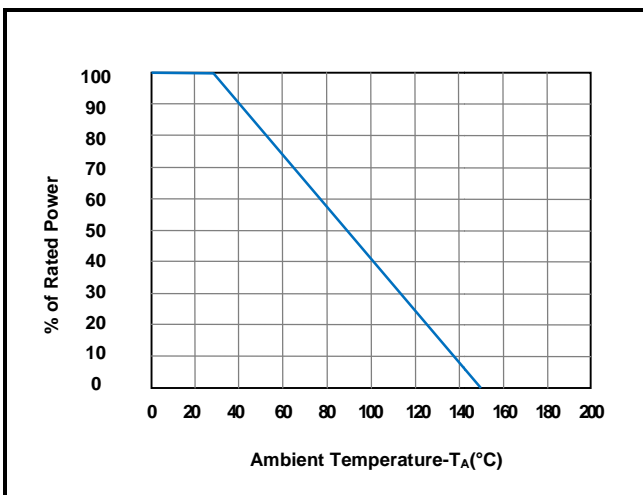


**Characteristic Curves**

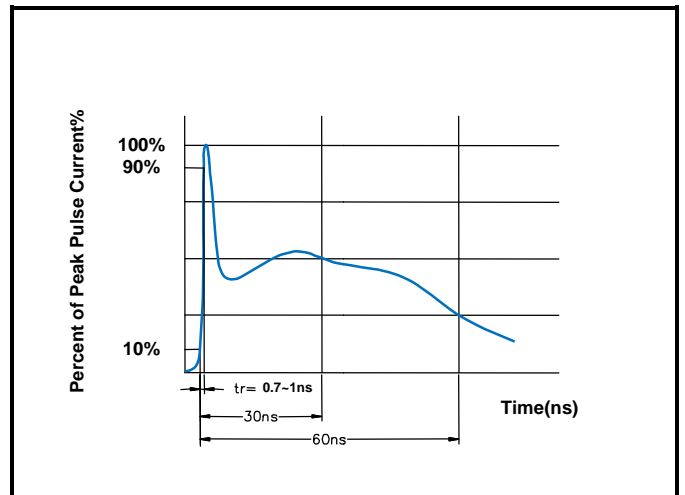
**Fig 1. 8/20µs Pulse Waveform**



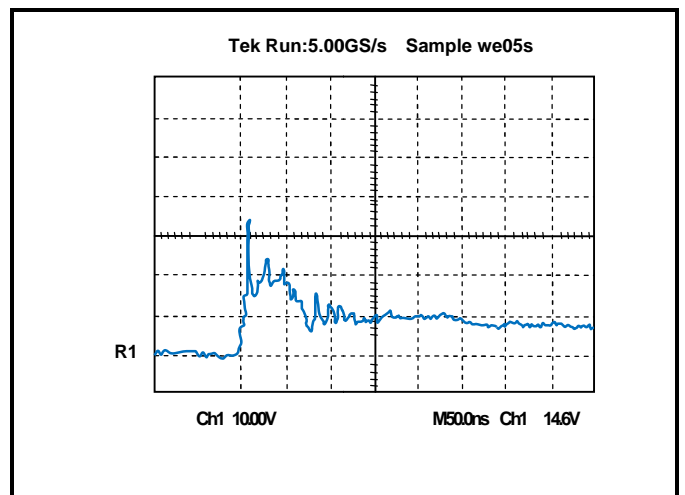
**Fig 3. Power Derating Curve**



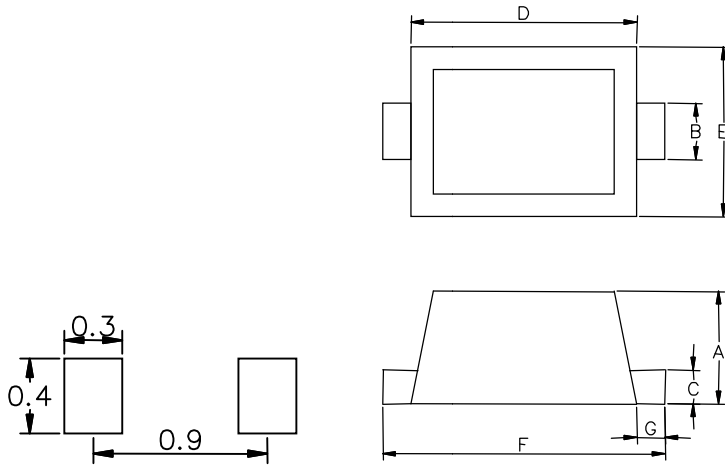
**Fig2.ESD Pulse Waveform (according to IEC61000-4-2)**



**Figure 4.ESD Clamping(8KV Contact per IEC61000-4-2)**



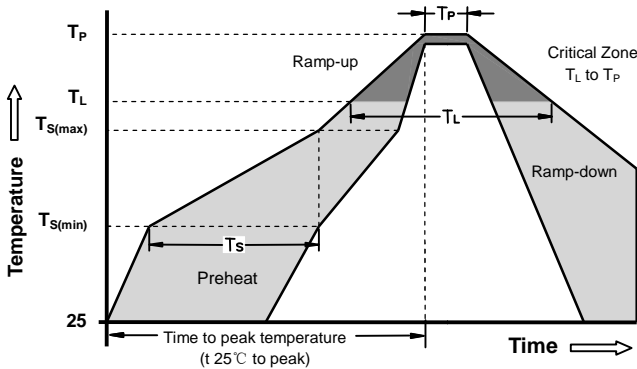
**Dimensions & Recommended soldering footprint(mm)**



DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	0.34	0.40	0.013	0.016
B	0.15	0.25	0.006	0.010
C	0.07	0.17	0.003	0.007
D	0.75	0.85	0.030	0.033
E	0.55	0.65	0.022	0.026
F	0.95	1.05	0.037	0.041
G	0.05	0.15	0.002	0.006

Part Number	Component package	Quantity	Reel Size	Molding compound flammability rating	Lead Finish
RLSD92A051C	SOD-923	8000	7 inch	UL 94V-0	Matte tin (RoHS Compliant)

**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

