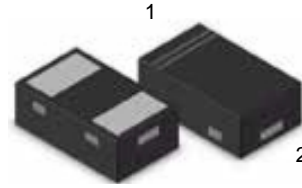
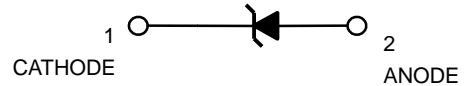


**Features**

- | 90 Watts Peak Pulse Power per Line (tp = 8/20µs)
- | Working voltages:5V
- | 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): ±15kV (air discharge), ±10kV (contact discharge)



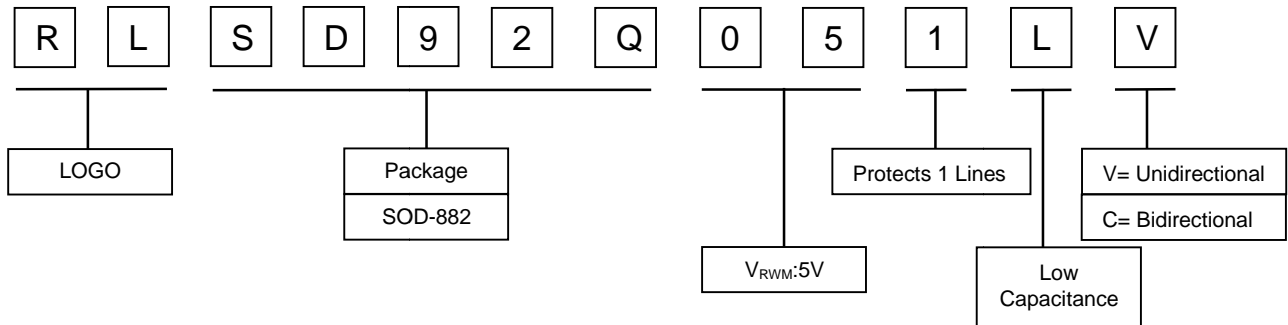
**Electrical symbol**



**Applications**

- | Video I/O ports protection
- | Set Top Boxes
- | Notebooks, Desktops, and Servers
- | Portable Instrumentation
- | Pagers Peripherals

**Part Number Code**



**Absolute Maximum Rating**

Rating	Symbol	Value	Units
Peak Pulse Power (tp =8/20µs)	P <sub>PK</sub>	90	Watts
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
Operating Temperature	T <sub>J</sub>	-55 to 125	°C
Storage Temperature	T <sub>STG</sub>	-55 to 150	°C

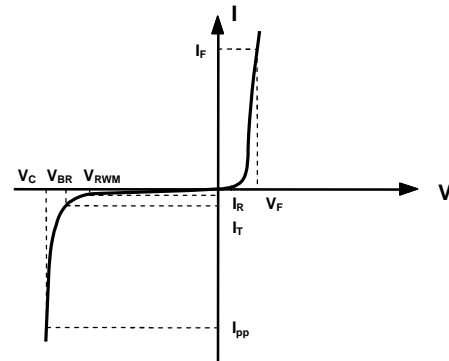
**Electrical Characteristics (@ 25°C Unless Otherwise Specified)**

Type Number	Reverse Stand-Off Voltage	Minimum Breakdown Voltage	Peak Pulse Voltage @8/20µS	Peak Pulse Current @8/20µS	Reverse Leakage @V <sub>RWM</sub>	Max Capacitance
	V <sub>RWM</sub>	V <sub>BR</sub> @1mA	V <sub>C</sub> @1A	I <sub>PP</sub>	I <sub>R</sub> @V <sub>RWM</sub>	DC=0V C <sub>J</sub> @ 1 MHz
	V	V	V	A	µA	pF
RLSD92Q051LV	5	5.4	9.8	3	1	0.9



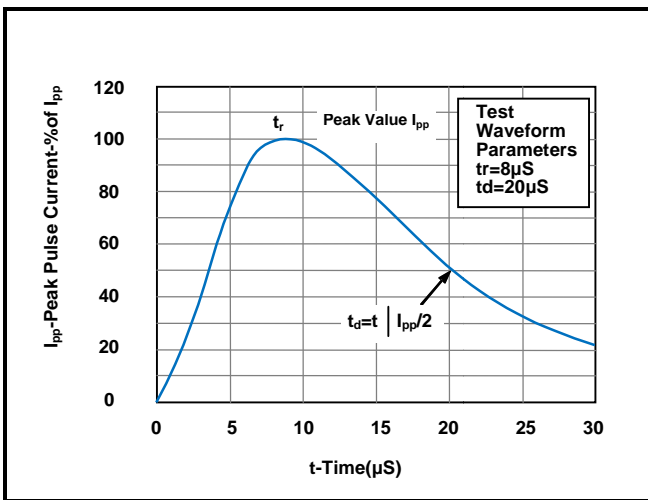
**Electrical Parameters (T=25°C)**

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 @ $I_F$

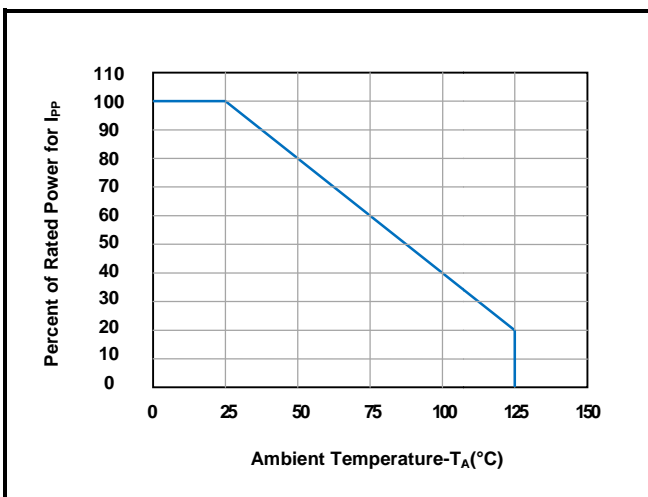


**Characteristic Curves**

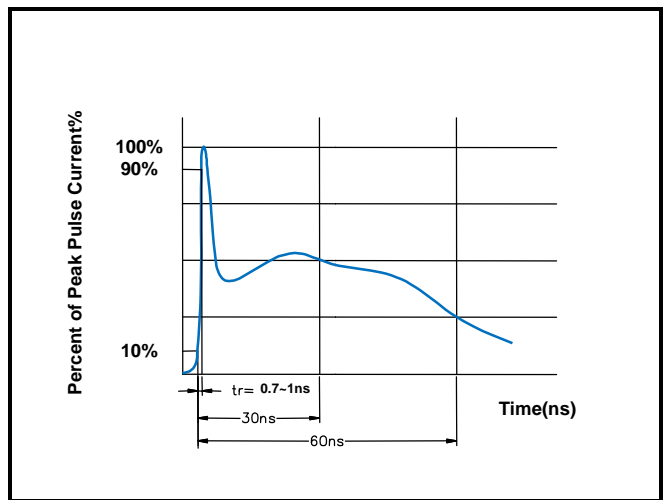
**Fig 1. 8/20μs Pulse Waveform**



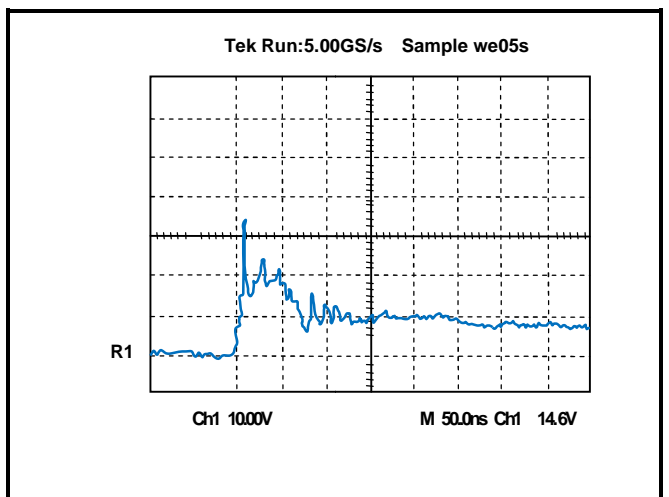
**Fig 3. Power Derating Curve**



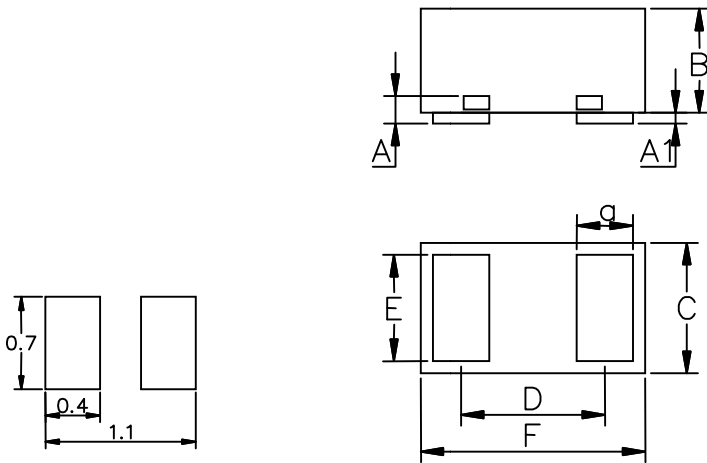
**Fig2.ESD Pulse Waveform (according to IEC61000-4-2)**



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



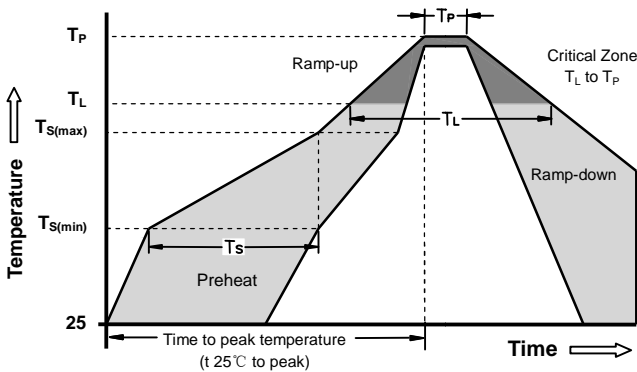
**Dimensions & Recommended soldering footprint(mm)**



DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	0.127REF		0.005	
A1	0	0.05	0	0.002
B	0.43	0.53	0.017	0.021
C	0.55	0.65	0.022	0.026
D	0.64		0.025	
E	0.44	0.54	0.017	0.021
F	0.95	1.05	0.037	0.041
a	0.20	0.30	0.008	0.012

Part Number	Marking	Component package	Quantity	Reel Size	Molding compound flammability rating	Lead Finish
RLSD92Q051LV	D	SOD-882	10000	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

