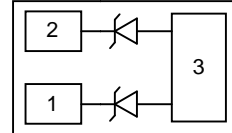


**Features**

- | 75 Watts Peak Pulse Power per Line (tp = 8/20µs)
- | Working voltages:5V
- | Low Leakage Current
- | Low operating and clamping voltages
- | Lead Free/RoHS compliant
- | 3-pin leadless package
- | Provides ESD protection to IEC61000-4-2(ESD): ±25kV (Air discharge), ±20kV (Contact discharge)



**Circuit and Pin Schematic**

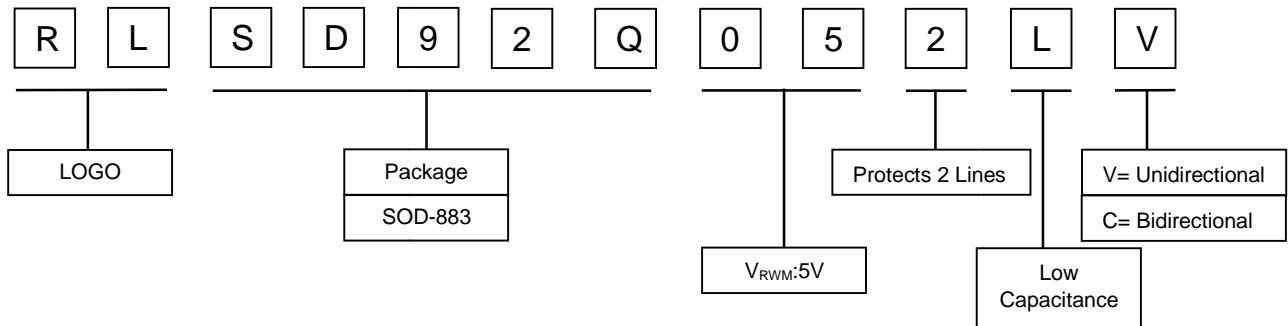


DFN1006-3 (1.0×0.6×0.5mm)

**Applications**

- | Digital Visual Interface (DVI)
- | MDDI Ports
- | Display Ports
- | Cellular Handsets and Accessories
- | USB 2.0 and 3.0 Ports
- | PCI Express and Serial SATA Ports
- | HDMI 1.3 and 1.4
- | Notebook Computer

**Part Number Code**



**Absolute Maximum Rating**

Rating	Symbol	Value	Units
Peak Pulse Power (tp =8/20µs)	P <sub>PK</sub>	75	Watts
ESD Voltage (Contact)	V <sub>ESD</sub>	±20	kV
ESD Voltage (Air)	V <sub>ESD</sub>	±25	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

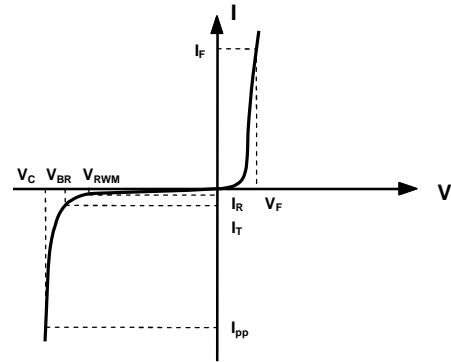
**Electrical Characteristics (@ 25°C Unless Otherwise Specified)**

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
RLSD92Q052LV	5	6	10	5	0.5	0.8



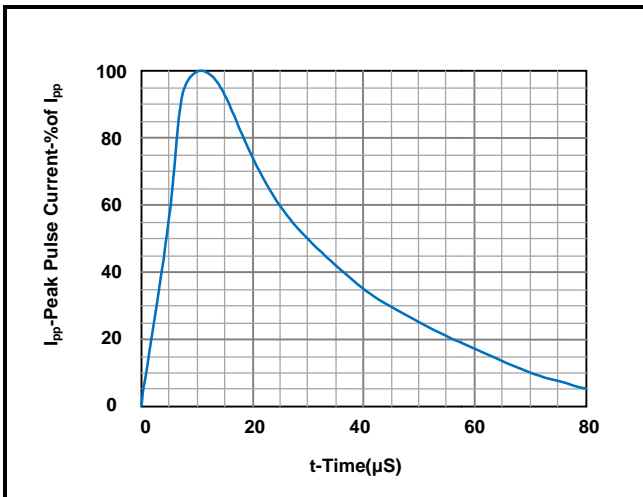
**Electrical Parameters (T=25°C)**

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 @ $I_F$

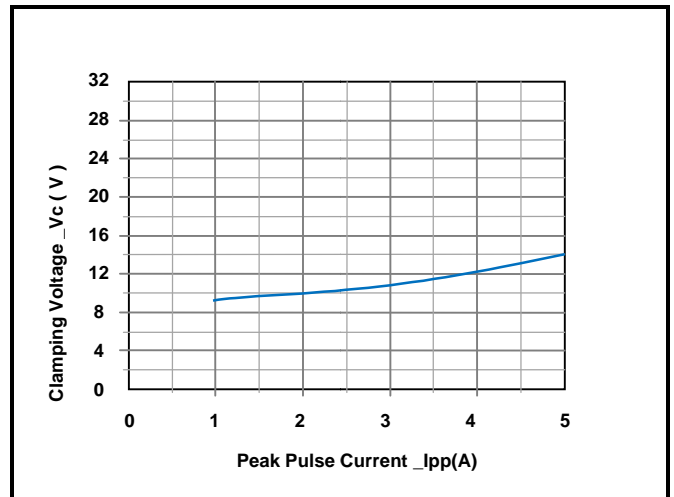


**Characteristic Curves**

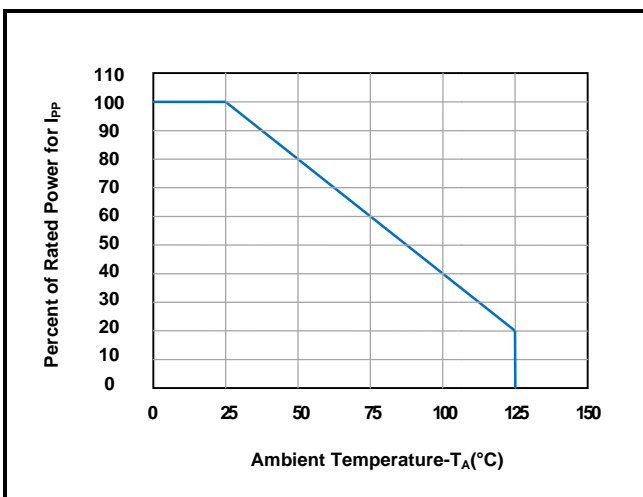
**Fig 1. 8/20µs Pulse Waveform**



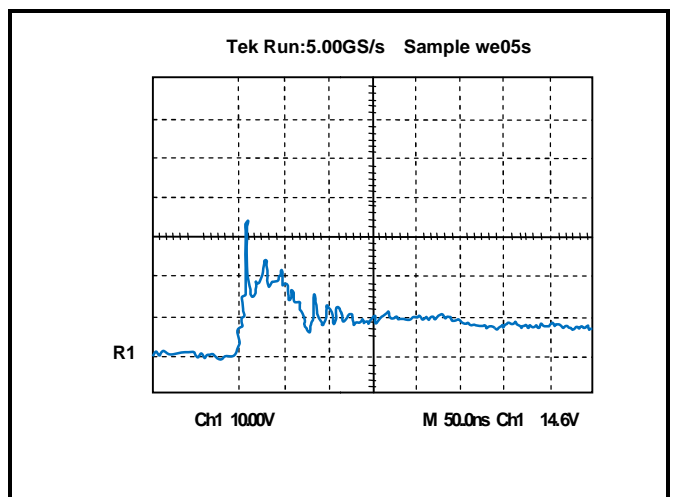
**Fig2. Clamping Voltage vs. Peak Pulse Current**



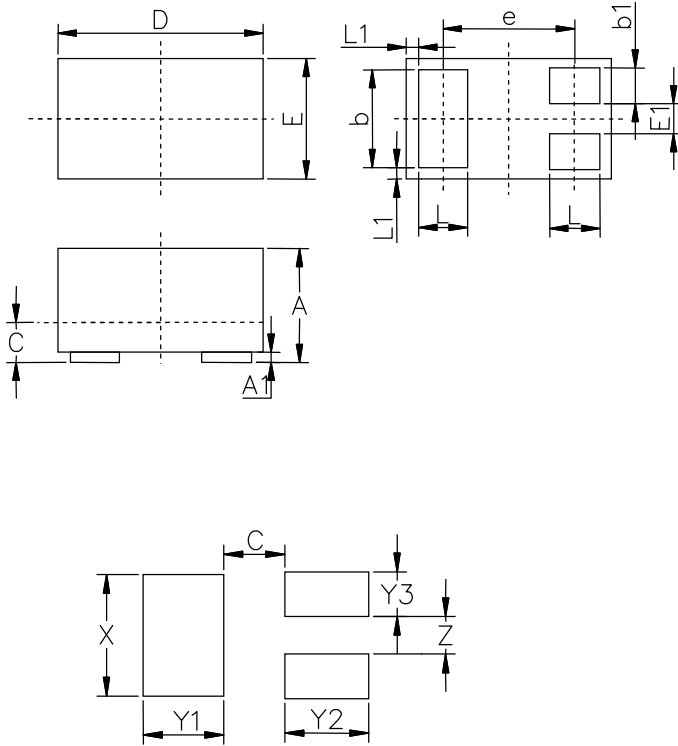
**Fig 3. Power Derating Curve**



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



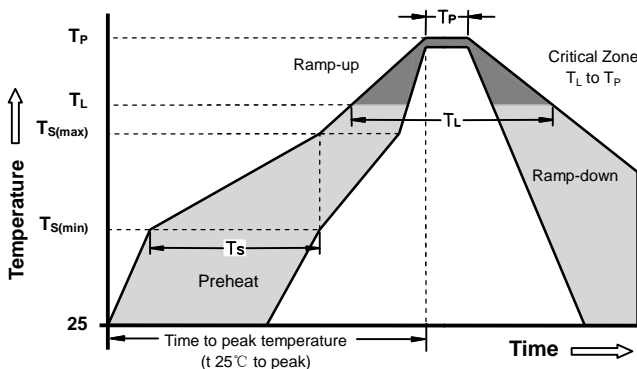
**Dimensions & Recommended soldering footprint(mm)**



SYM	Millimeters		Inches	
	Min	Max	Min	Max
A	0.45	0.55	0.018	0.022
A1	0	0.05	0	0.002
b	0.45	0.55	0.018	0.022
b1	0.10	0.20	0.004	0.008
c	0.12	0.18	0.005	0.007
D	0.95	1.05	0.037	0.041
e	0.65BSC		0.026BSC	
E	0.55	0.65	0.022	0.026
E1	0.15	0.25	0.006	0.010
L	0.20	0.30	0.008	0.012
L1	0.05REF		0.0002REF	
C	0.25		0.010	
X	0.65		0.024	
Y1	0.50		0.020	
Y2	0.50		0.020	
Y3	0.25		0.010	
Z	0.20		0.008	

Part Number	Component package	Quantity	Reel Size	Molding compound flammability rating	Lead Finish
RLSD92Q052LV	SOD-883	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 <sub>S(min)</sub> )	150°C
	-Temperature Max (T <sub>S(max)</sub> )	200°C
	- Time (min to max) (t <sub>s</sub> )	60 -180 Seconds
Average ramp up rate ( Liquids Temp T <sub>L</sub> to peak		3°C/second max
T <sub>S(max)</sub> to T <sub>L</sub> - Ramp-up Rate		3°C/second max
Reflow	- Temperature (T <sub>L</sub> ) (Liquids)	217°C
	- Time (min to max) (t <sub>s</sub> )	60 -150 Seconds
Peak Temperature (T <sub>P</sub> )		260 +0/-5°C
Time within 5°C of actual peak Temperature (t <sub>p</sub> )		20 - 40 Seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T <sub>P</sub> )		8 minutes Max
Do not exceed		280°C

