



# TVS/ESD Arrays

RLSD52A051LC Series

## TVS/ESD Arrays - RLSD52A051LC Series

### Features

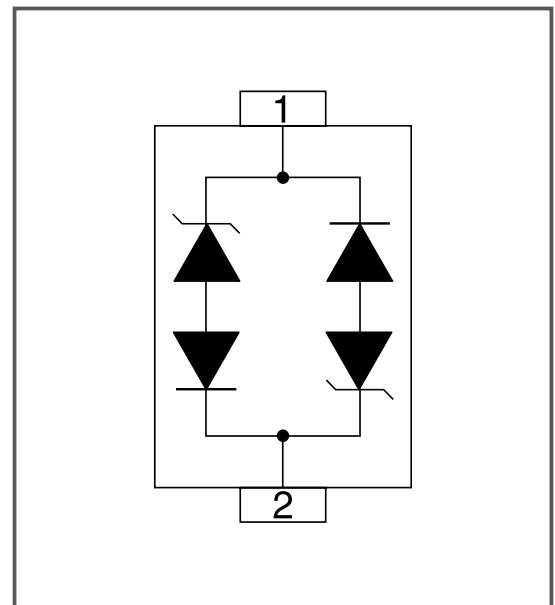
- 100 Watts Peak Pulse Power per Line (tp = 8/20µs)
- Working voltages: 5V
- Low Leakage Current
- Low operating and clamping voltages
- Lead Free/RoHS compliant
- Solid-state silicon avalanche technology
- Provides ESD protection to IEC61000-4-2(ESD):
  - ±15kV (air discharge)
  - ±8kV (contact discharge);



### Mechanical Characteristics

- SOD-523 package
- Molding compound flammability rating: UL 94V-0
- Quantity Per Reel :3,000pcs
- Reel Size : 7 inch
- Lead Finish : Lead Free

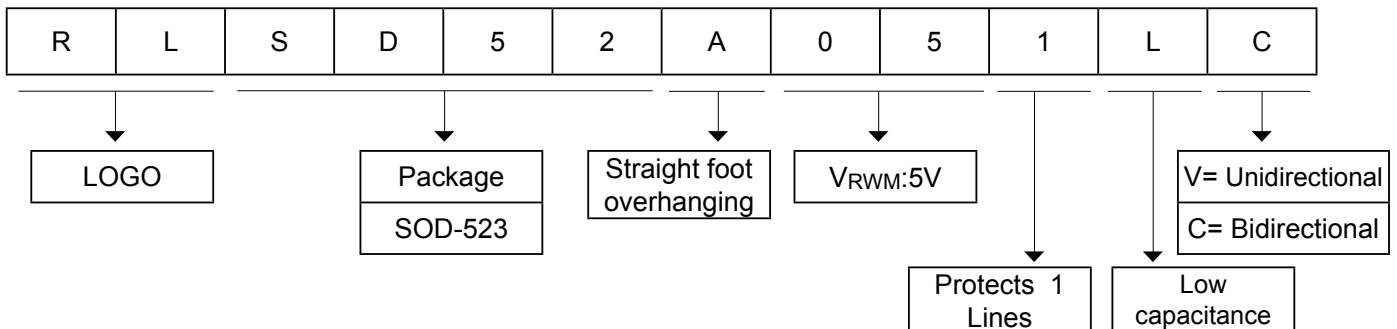
### Pinout and Functional Block Diagram



### Applications

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

### Part Number Code



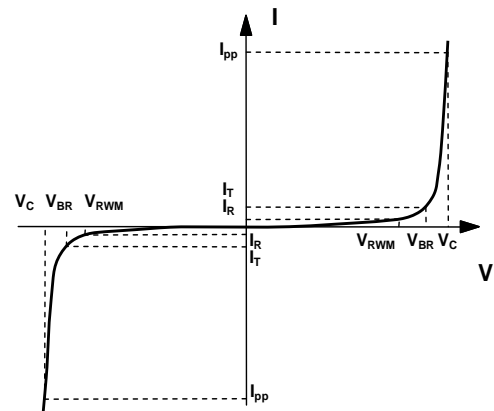
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### Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p = 8/20\mu s$ )	$P_{pk}$	100	Watts
ESD Voltage (Contact)	$V_{ESD}$	$\pm 8$	Kv
ESD Voltage (Air)	$V_{ESD}$	$\pm 15$	Kv
Lead Soldering Temperature	$T_L$	260 (10 sec.)	$^{\circ}C$
Operating Temperature	$T_J$	-55 to +125	$^{\circ}C$
Storage Temperature	$T_{STG}$	-55 to +150	$^{\circ}C$

### Electrical Parameters (T=25 $^{\circ}C$ )

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



### Electrical Characteristics (@ 25 $^{\circ}C$ Unless Otherwise Specified)

Type Number	Reverse Stand-Off Voltage	Minimum Breakdown Voltage	Peak Pulse Voltage @ 8/20 $\mu s$	Peak Pulse Current @ 8/20 $\mu s$	Reverse Leakage @ $V_{RWM}$	Typical Capacitance
	$V_{RWM}$	$V_{BR@1mA}$	$V_C@1A$	$I_{PP}$	$I_R@V_{RWM}$	$C_J@ 1 MHz$
	V	V	V	A	$\mu A$	pF
RLSD52A051LC	5	6	9.8	7	1	1

## TVS/ESD Arrays - RLSD52A051LC Series

### Typical Characteristics

Fig1. 8/20 $\mu$ s Pulse Waveform

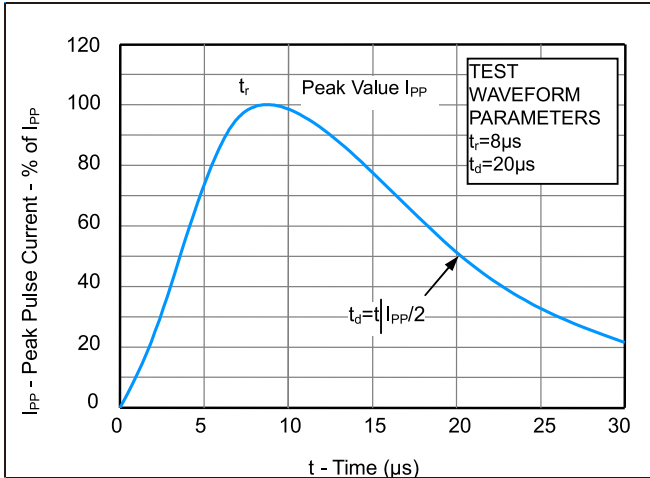


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

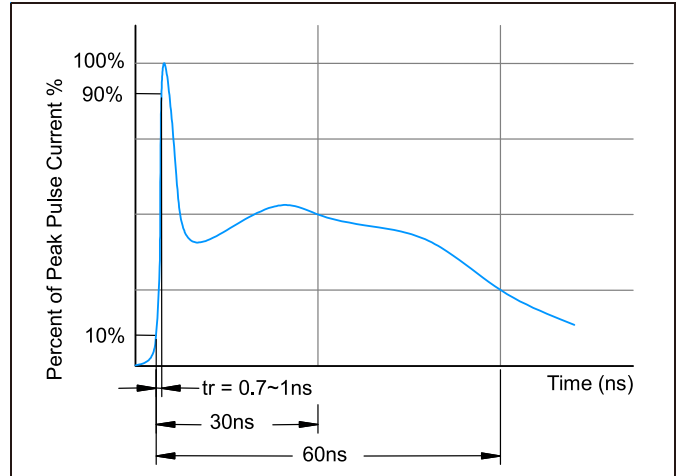


Fig3. Power Derating Curve

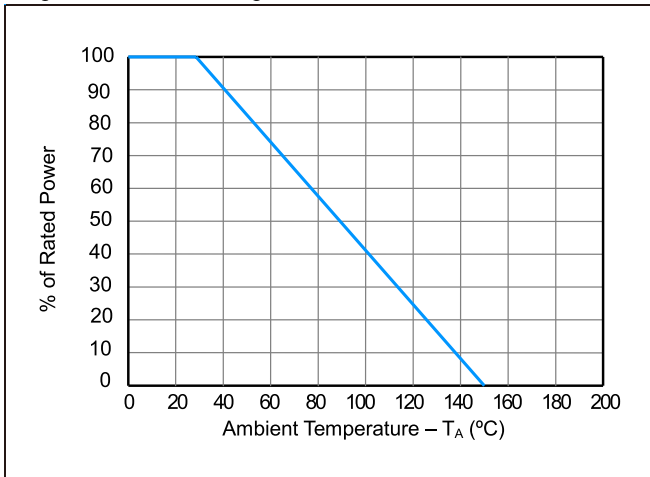
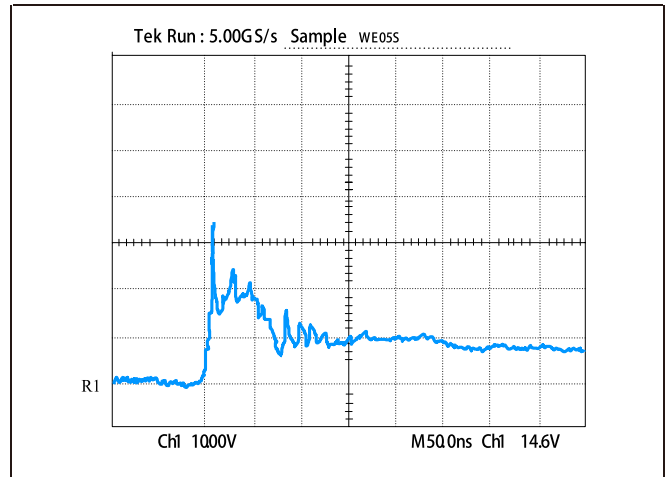
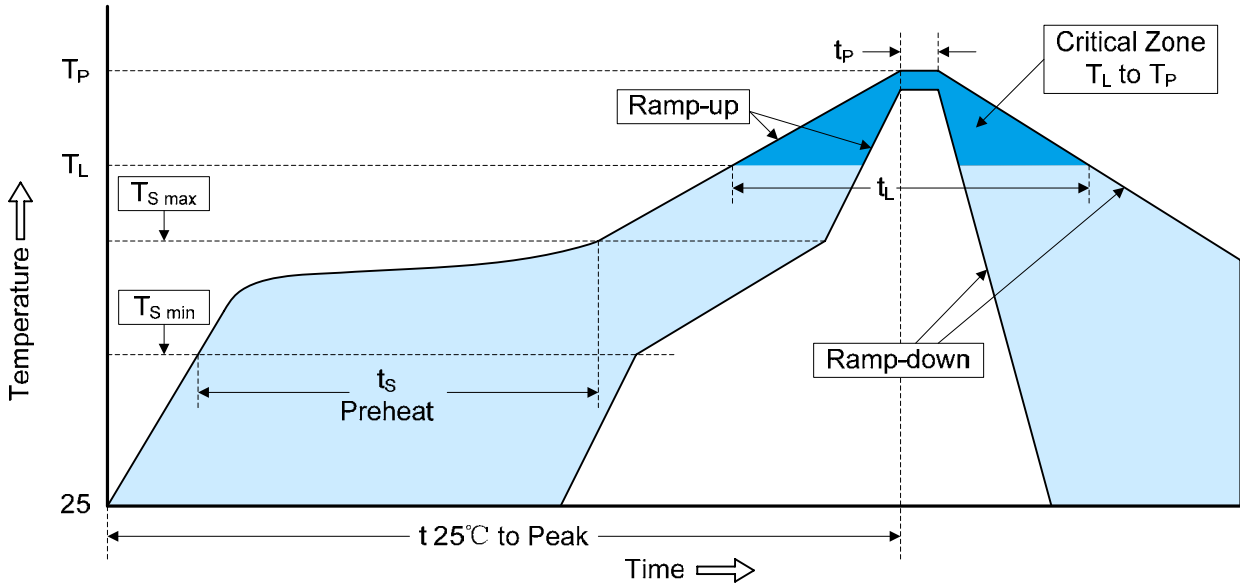


Figure 4: ESD Clamping (8kV Contact per IEC 61000-4-2)



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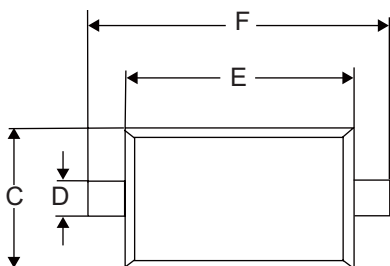
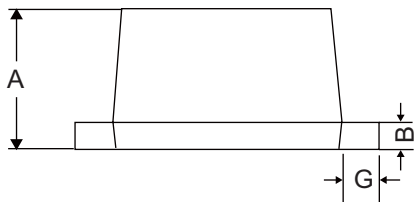
### Recommended Soldering Conditions



Profile Feature	Pb-Free Assembly
Average ramp-up rate (T <sub>L</sub> to T <sub>P</sub> )	3°C/second max.
Preheat	150°C
-Temperature Min (T <sub>S min</sub> )	200°C
-Temperature Max (T <sub>S max</sub> )	60-180 seconds
-Time (min to max) (t <sub>s</sub> )	
T <sub>S max</sub> to T <sub>L</sub>	3°C/second max.
-Ramp-up Rate	
Time maintained above:	217°C
-Temperature (T <sub>L</sub> )	60-150 seconds
-Time (t <sub>L</sub> )	
Peak Temperature (T <sub>P</sub> )	260°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	8 minutes max.

## TVS/ESD Arrays - RLSD52A051LC Series

### Package dimension SOD-523



Symbol	Dimensions					
	Inches			Millimeters		
	Min	Nom	Max	Min	Nom	Max
A	0.020	0.024	0.028	0.50	0.60	0.70
B	0.003	0.006	0.008	0.07	0.14	0.20
C	0.028	0.031	0.035	0.70	0.80	0.90
D	0.010	0.012	0.014	0.25	0.30	0.35
E	0.043	0.047	0.051	1.10	1.20	1.30
F	0.059	0.063	0.067	1.50	1.60	1.70
G	0.006	0.008	0.010	0.15	0.20	0.25

单击下面可查看定价，库存，交付和生命周期等信息

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