



# TVS/ESD Arrays

RLSD32AxxxLC Series

## TVS/ESD Arrays - RLSD32AxxxLC Series

### Features

- 350 Watts Peak Pulse Power per Line ( $t_p = 8/20\mu s$ )
- Bidirectional Configuration
- Protects One Power or I/O Port
- ESD Protection > 40 kilovolts
- Low Clamping Voltages
- Ultra Low Capacitance: 1.0 pF Typical



### Mechanical Characteristics

- SOD-323 package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel per EIA 481
- Lead Finish: Matte tin
- RoHS Compliant

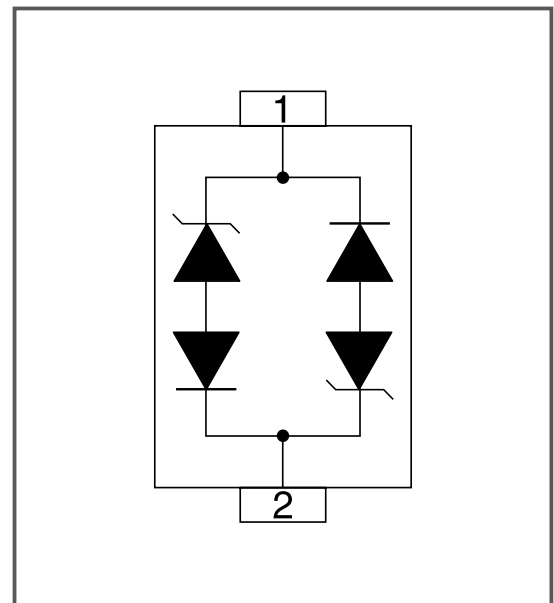
### IEC COMPATIBILITY (EN61000-4)

- IEC 61000-4-2 (ESD)  $\pm 15kV$  (air),  $\pm 8kV$  (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 24A (8/20 $\mu s$ )

### Applications

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

### Pinout and Functional Block Diagram



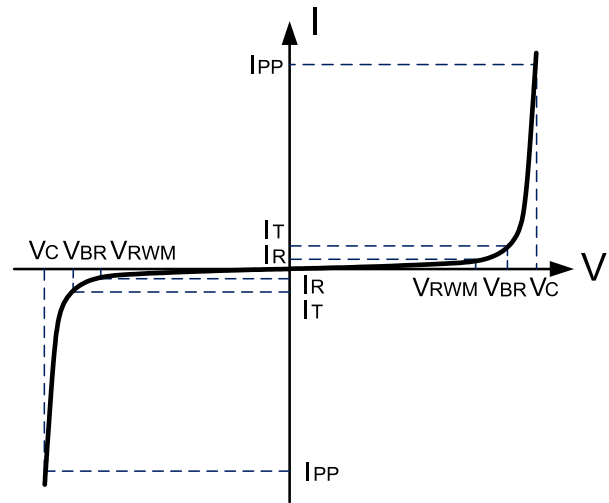
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### Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power (tp =8/20μs)	P <sub>pk</sub>	350	Watts
ESD voltage (Contact discharge)	V <sub>ESD</sub>	±8	Kv
ESD voltage (Air discharge)	V <sub>ESD</sub>	±15	Kv
Lead soldering temperature	T <sub>L</sub>	260	°C
Storage & operating temperature range	T <sub>STG</sub> , T <sub>J</sub>	-55 to +150	°C

### Electrical Parameters (T=25°C)

Symbol	Parameter
V <sub>RWM</sub>	Working Peak Reverse Voltage
I <sub>R</sub>	Maximum Reverse Leakage Current @ V <sub>RWM</sub>
V <sub>BR</sub>	Breakdown Voltage @ I <sub>T</sub>
I <sub>T</sub>	Test Current
I <sub>F</sub>	Forward Current
V <sub>F</sub>	Forward Voltage @ I <sub>F</sub>



### Electrical Characteristics PerLin (@ 25°C Unless Otherwise Specified)

Type Number	Peak Power Dissipation @8/20μS Pppm	Reverse Stand-Off Voltage	Peak Pulse Voltage @8/20μS	Peak Pulse Current @8/20μS	Reverse Leakage @Vrwm	Maximum Capacitance @1MHZ
		Vrwm	Vc@IPP	IPP	IR@Vrwm	Co
		Max	V	A	Max	Max
	W	V	V	A	μA	pF
RLSD32A031LC	350	3.3	7.5	5	20	1
RLSD32A051LC	350	5	9.8	5	5	1
RLSD32A081LC	350	8	13.4	5	1	1
RLSD32A121LC	350	12	19	5	1	1
RLSD32A151LC	350	15	24	5	1	1
RLSD32A181LC	350	18	29	5	1	1
RLSD32A241LC	350	24	43	1	1	1
RLSD32A361LC	350	36	60	1	1	1

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### Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

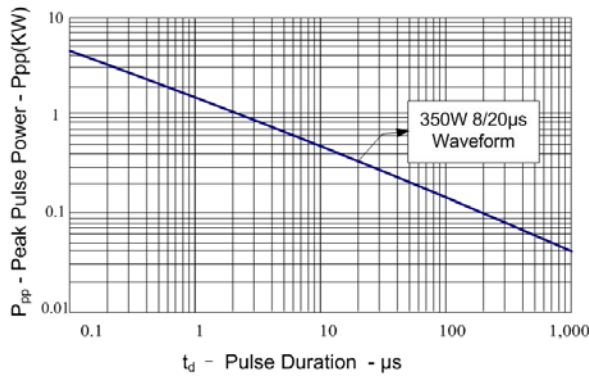


Figure 2: Power Derating Curve

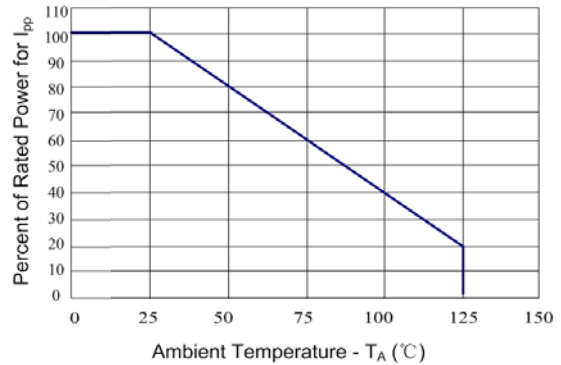


Figure 3: Clamping Voltage vs. Peak Pulse Current

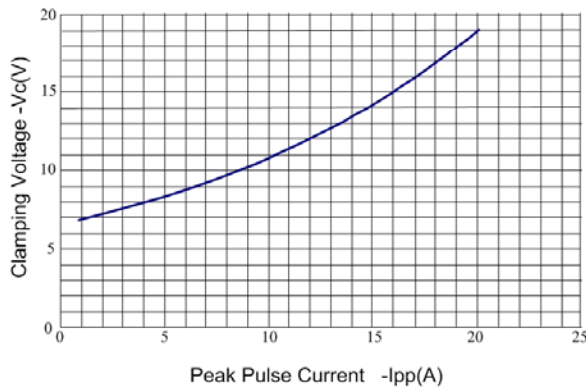


Figure 4: Normalized Junction Capacitance vs. Reverse Voltage

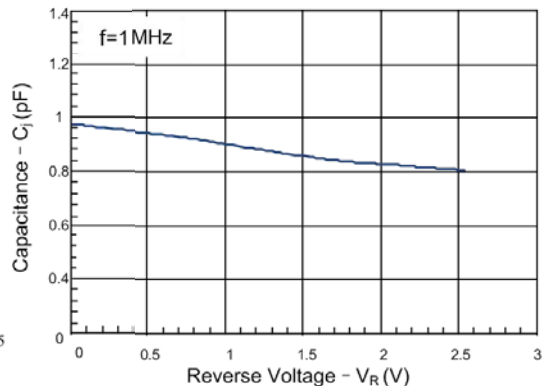


Figure 5: Pulse Waveform

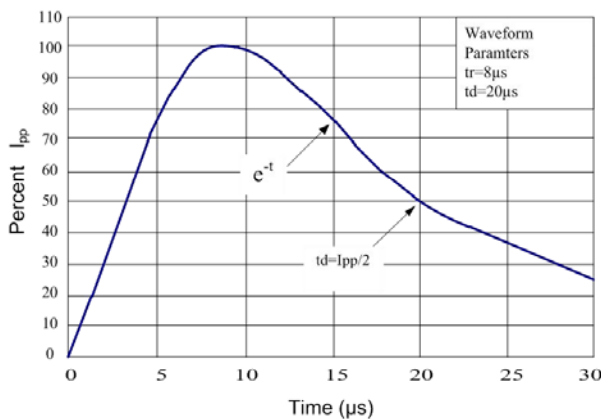
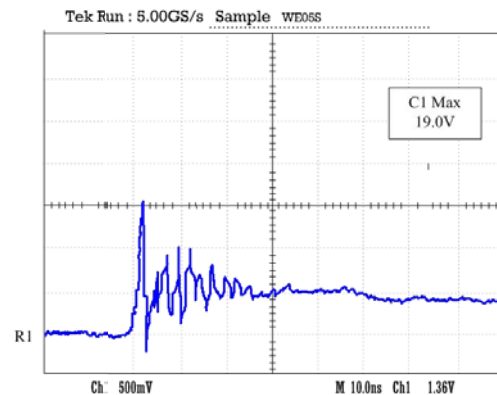
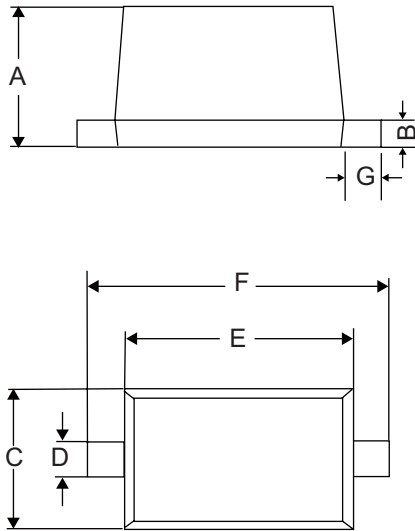


Figure 6: ESD Clamping( 8kV Contact per IEC 61000-4-2)



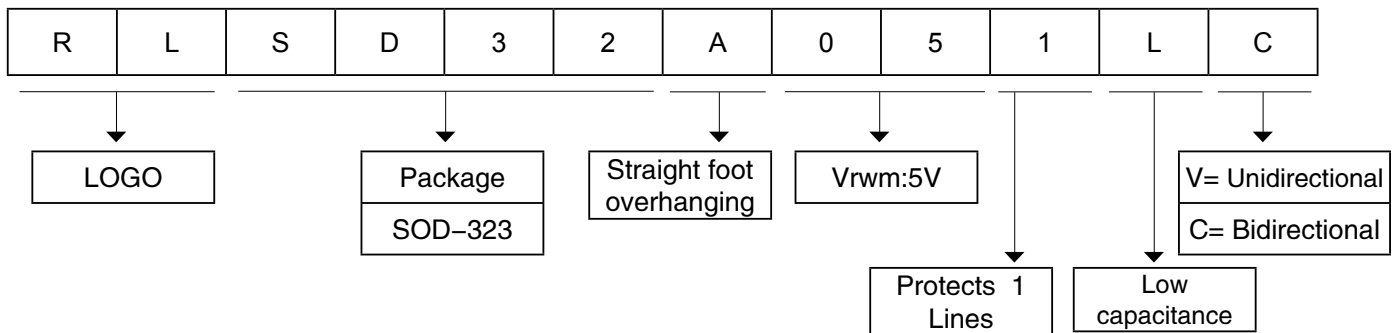
## TVS/ESD Arrays - RLSD32AxxxLC Series

### Package dimension SOD-323



Symbol	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
A	0.031	0.040	0.8	1.0
B	0.004	0.010	0.10	0.25
C	0.045	0.054	1.2	1.4
D	0.012	0.016	0.3	0.4
E	0.060	0.071	1.5	1.8
F	0.090	0.107	2.3	2.7
G	0.006	0.010	0.15	0.25

### Part Number Code



### Ordering Information

Part Number	Package	Min. Order Qty.
RLSD32AxxxLC	SOD-323	3000pcs

## RuiLongYuan Electronics Co., Ltd.

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**Tel: +86-755-8290 8296**

**Fax: +86-755-8290 8002**

**E-mail: [jack@ruilon.com](mailto:jack@ruilon.com)**

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