

TVS/ESD Arrays

RLSD12AxxxC Series

TVS/ESD Arrays - RLSD12AxxxC Series

Features

- 350 Watts peak pulse power ($t_p = 8/20\mu s$)
- Transient protection for data lines to
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 μs)
- Small package for use in portable electronics
- Suitable replacement for MLV's in ESD protection applications
- Protects one I/O or power line
- Solid-state silicon avalanche technology



Mechanical Characteristics

- SOD-123 package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel per EIA 481
- Lead Finish: Matte tin
- RoHS Compliant

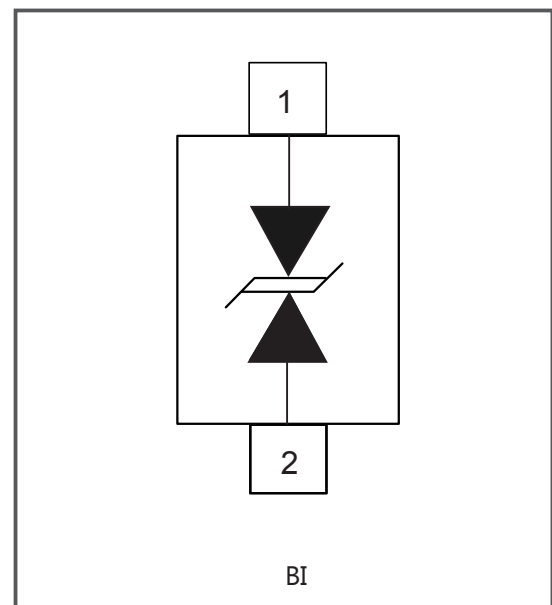
Applications

- Personal digital assistants (PDA)
- Cellular handsets & Accessories
- Portable devices
- Portable instrumentation
- Handhelds and notebooks
- Digital cameras

Life Support Note

- Not Intended for Use in Life Support or Life Saving Applications
- The products shown herein are not designed for use in life sustaining or life saving applications unless otherwise expressly indicated

Pinout and Functional Block Diagram



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Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak pulse power (tp=8/20µs waveform)	Ppp	200	Watts
ESD voltage (HBM contact)	VESD	±25	Kv
operating temperature range	TJ	-55 to +125	°C
Storage temperature range	TSTG	-55 to +150	°C

Electrical Characteristics Per Lin (@ 25°C Unless Otherwise Specified)

Type Number	Peak Power Dissipation @8/20µS Pppm	Reverse Stand-Off Voltage Vrwm Max	Peak Pulse Voltage @8/20µS Pppm Vc@IPP	Peak Pulse Current @8/20µS Pppm IPP	Reverse Leakage @Vrwm IR@Vrwm Max	Maximum Capacitance @1MHZ Co Max
	W	V	V	A	µA	pF
RLSD12A051C	400	5	7.5	5	20	235
RLSD12A121C	400	12	14.5	5	1	185
RLSD12A151C	400	15	19	5	1	165
RLSD12A241C	400	24	29	5	1	120

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Typical Characteristics

Figure 1. Peak Pulse Power Rating Curve

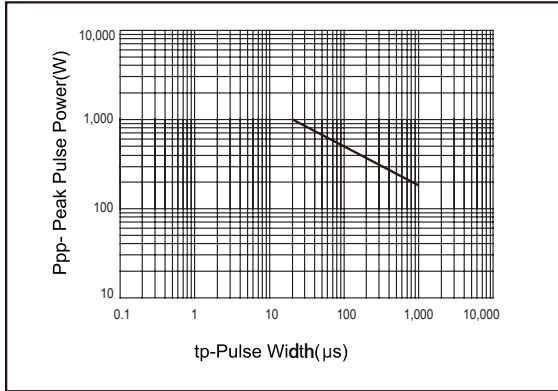


Figure 2. 10/1000 μs Pulse Waveforms

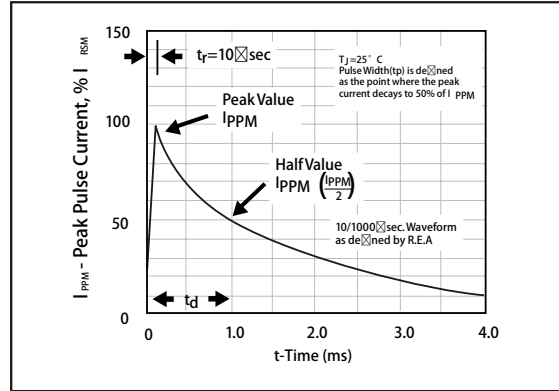


Figure 3. 8/20 μs Pulse Waveforms

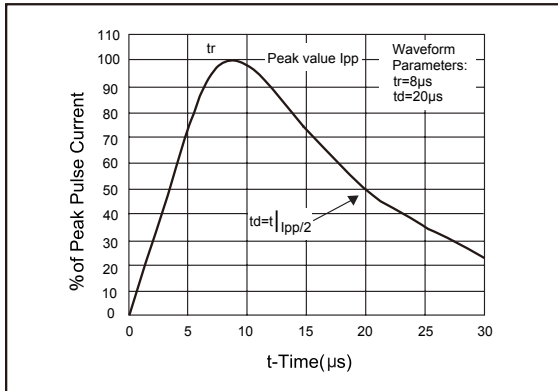


Figure 4. Power Derating Curve

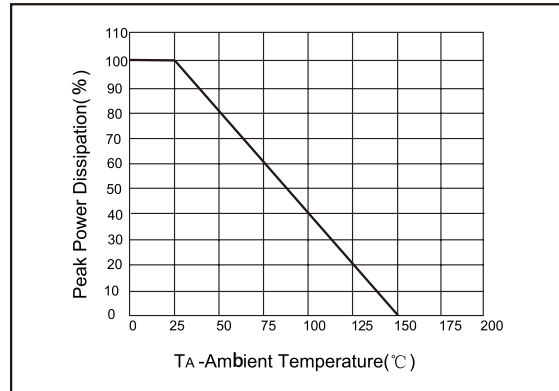
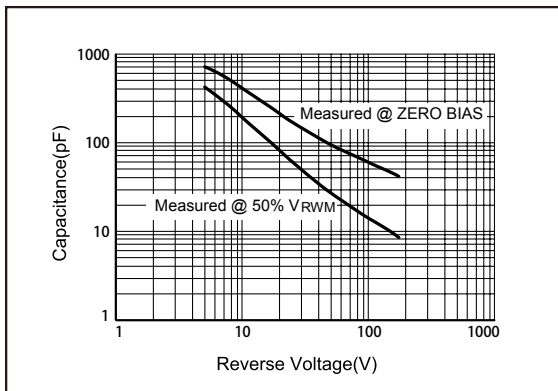
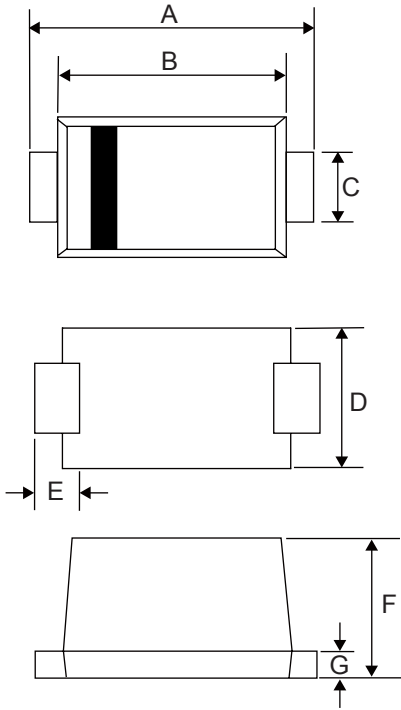


Figure 5. Capacitance vs. Reverse Voltage



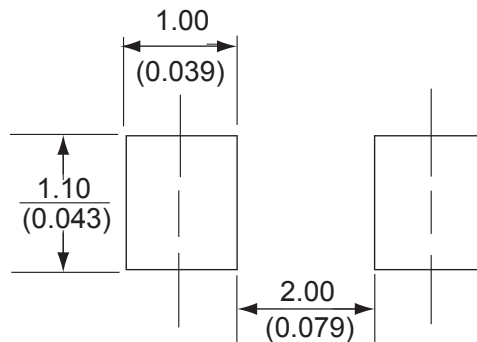
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Package dimension SOD-123



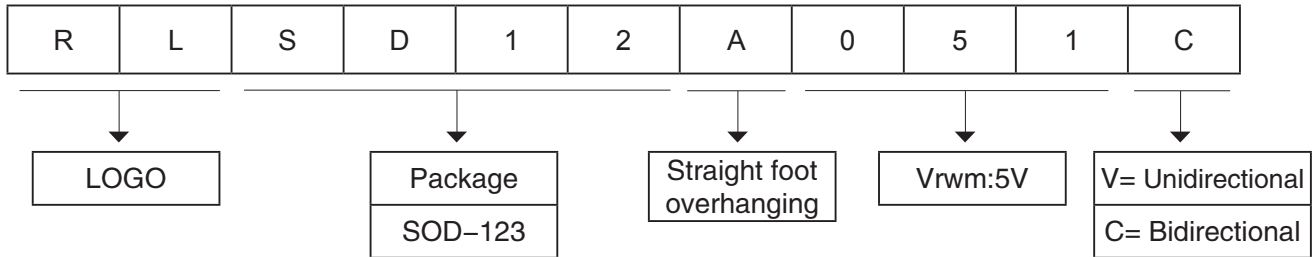
Dimensions				
Symbol	Inches		Millimeters	
	Min	Max	Min	Max
A	0.138	0.154	3.50	3.90
B	0.102	0.118	2.60	3.00
C	0.030	0.037	0.75	0.95
D	0.063	0.079	1.60	2.00
E	0.031typ		0.80typ	
F	0.035	0.039	0.90	1.05
G	0.007	0.009	0.18	0.22

Soldering footprint

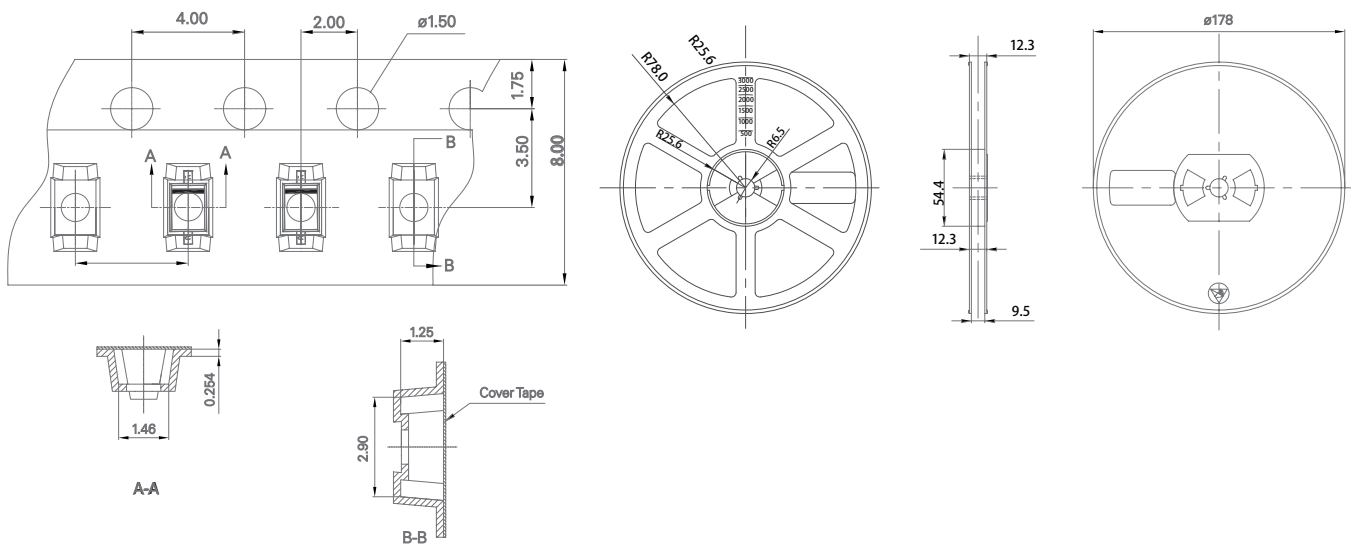


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Part Number Code



Tape and reel



Ordering Information

Part Number	Package	Min. Order Qty.
RLSD12AxxxC	SOD-123	3000pcs

Warehouse Storage Conditions of Products

- Storage Conditions:
- 1. Storage Temperature: -10°C~+40°C
- 2. Relative Humidity: ≤75%RH
- 3. Keep away from corrosive atmosphere and sunlight.
- 4. Period of Storage: 1 year

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