

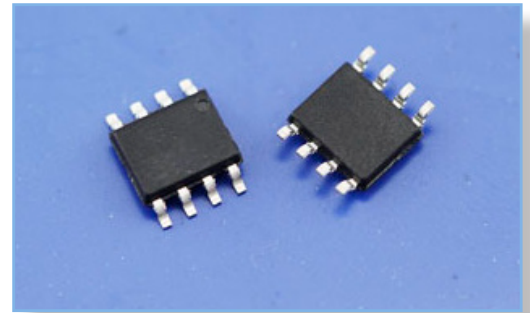
# TVS/ESD Arrays

RLSO8A2.84LV Series

## TVS/ESD Arrays - RLSO8A2.84LV Series

### Features

- 400 Watts peak pulse power ( $t_p = 8/20\mu s$ )
- Transient protection for high speed 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 $\mu s$ )
- Protects two line pairs (four lines)
- Comprehensive pin out for easy board layout
- Low capacitance
- Low leakage current
- Low operating and clamping voltages
- Solid-state EPD TVS process technology



### Mechanical Characteristics

- JEDEC SOIC-8 package
- Molding compound flammability rating: UL 94V-0
- Marking : Part number, date code, logo
- Packaging : Tape and Reel

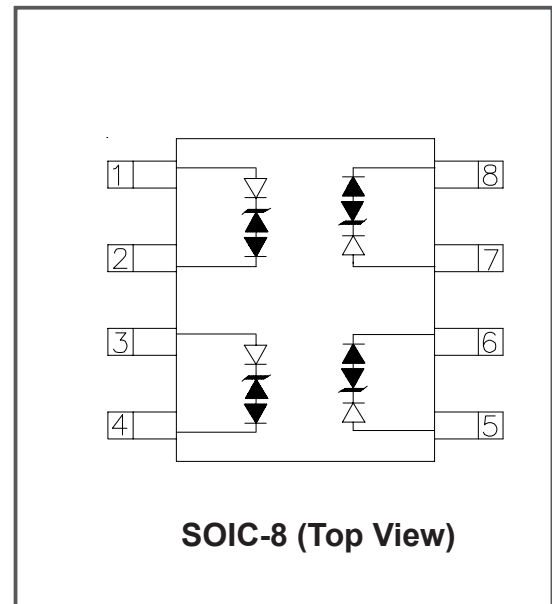
### Applications

- 10/100 Ethernet
- WAN/LAN Equipment
- Switching Systems
- Desktops, Servers, and Notebooks
- Instrumentation
- Base Stations
- Analog Inputs

### 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



## TVS/ESD Arrays - RLSO8A2.84LV Series

### Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p = 8/20\mu s$ )	$P_{pk}$	400	Watts
Peak Pulse Current ( $t_p = 8/20\mu s$ )	$I_{pp}$	24	A
ESD per IEC 61000-4-2 (Air)	$V_{ESD}$	25	Kv
ESD per IEC 61000-4-2 (Contact)	$V_{ESD}$	15	Kv
Lead Soldering Temperature	$T_k$	260 (10 sec.)	$^{\circ}C$
Operating Temperature	$T_J$	-55 to +125	$^{\circ}C$
Storage Temperature	$T_{STG}$	-55 to +150	$^{\circ}C$

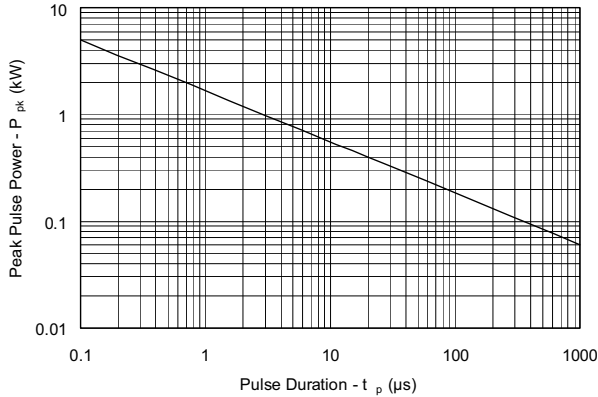
### Electrical Characteristics Per Lin (@ 25 $^{\circ}C$ Unless Otherwise Specified)

Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	$V_{RWM}$	-	-	-	2.8	V
Punch-Through Voltage	$V_{PT}$	$I_{pT} = 2\mu A$	3.0	-	-	V
Snap-Back Voltage	$V_{SB}$	$I_{SB} = 50mA$	2.8	-	-	V
Reverse Leakage Current	$I_R$	$V_{RWM} = 2.8V, T = 25^{\circ}C$ (Each Line)	-	-	1	$\mu A$
Clamping Voltage	$V_C$	$I_{pp} = 1A, t_p = 8/20\mu s$ (Each Line)	-	-	5.5	V
Clamping Voltage	$V_C$	$I_{pp} = 5A, t_p = 8/20\mu s$ (Each Line)	-	-	8.5	V
Clamping Voltage	$V_C$	$I_{pp} = 24A, t_p = 8/20\mu s$ (Each Line)	-	-	15	V
Junction Capacitance	$C_j$	$V_R = 0V, f = 1MHz$ (Each Line)	-	5	-	pF

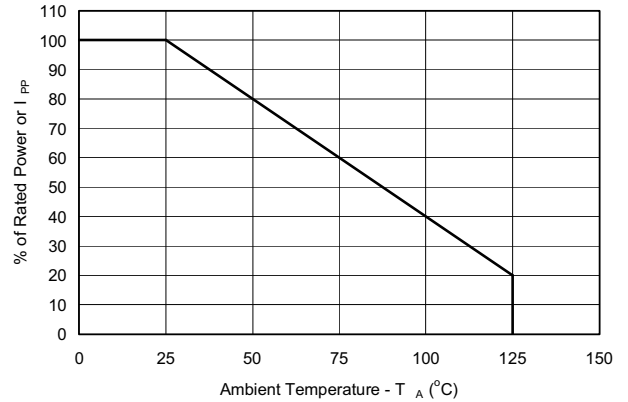
## TVS/ESD Arrays - RLS08A2.84LV Series

### Typical Characteristics

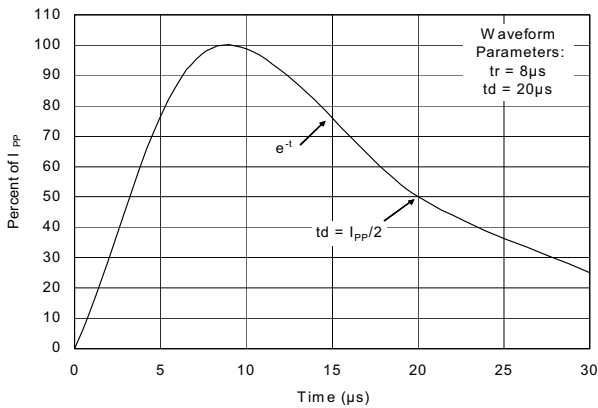
Non-Repetitive Peak Pulse Power vs. Pulse Time



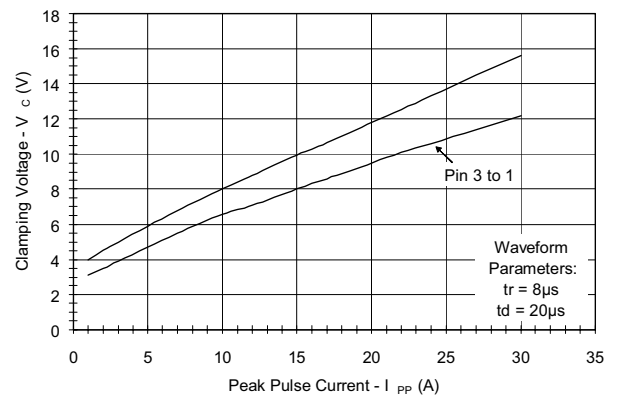
Power Derating Curve



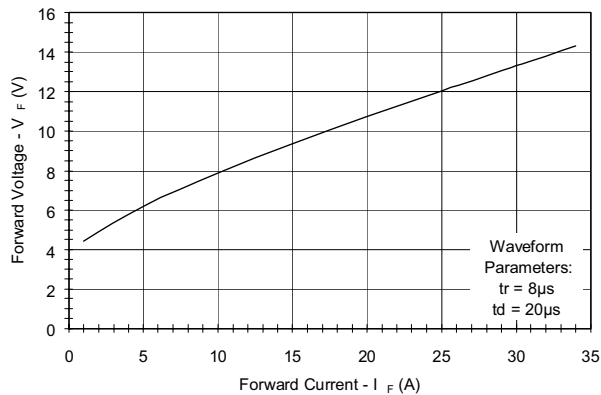
Pulse Waveform



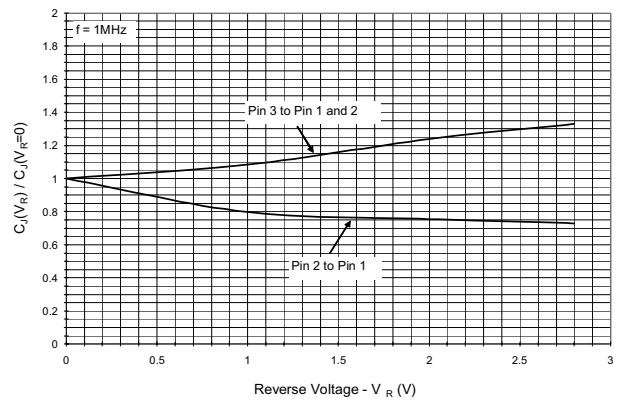
Clamping Voltage vs. Peak Pulse Current



Forward Voltage vs. Forward Current



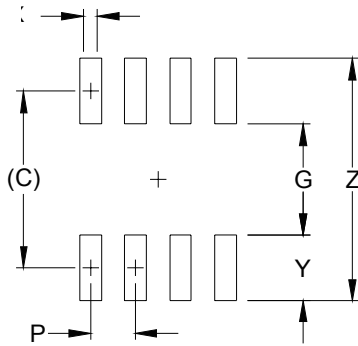
Normalized Capacitance vs. Reverse Voltage





## TVS/ESD Arrays - RLSO8A2.84LV Series

### Soldering footprint

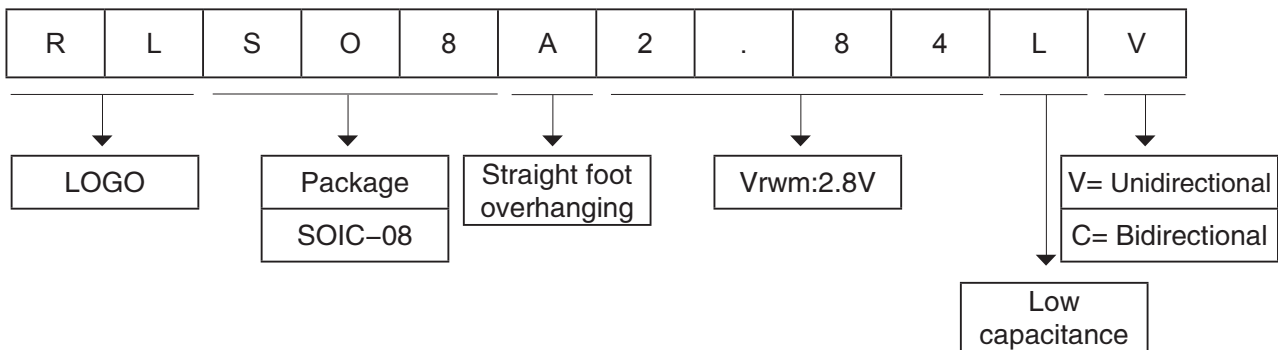


Dimensions		
DIM	Inches	Millimeters
C	(0.205)	(5.20)
G	0.118	3.00
P	0.050	1.27
X	0.04	0.60
Y	0.087	2.20
Z	0.291	7.40

**NOTES:**

1. THIS LAND PATTERN IS FOR REFERENCE PURPOSES ONLY. CONSULT YOUR MANUFACTURING GROUP TO ENSURE YOUR COMPANY'S MANUFACTURING GUIDELINES ARE MET.
2. REFERENCE IPC-SM-782A, RLP NO. 300A.

### Part Number Code



### Ordering Information

Part Number	Package	Min. Order Qty.
RLSO8A2.84LV	SOIC-08	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.

• Period of Storage: 1 year

## RuiLongYuan Electronics Co., Ltd.

---

- Reproducing and modifying information of the document is prohibited without permission from Ruilongyuan International Inc.
- Ruilongyuan International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Ruilongyuan International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Ruilongyuan International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Ruilongyuan International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Ruilongyuan International Inc. for any damages resulting from such improper use or sale.

---

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

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

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