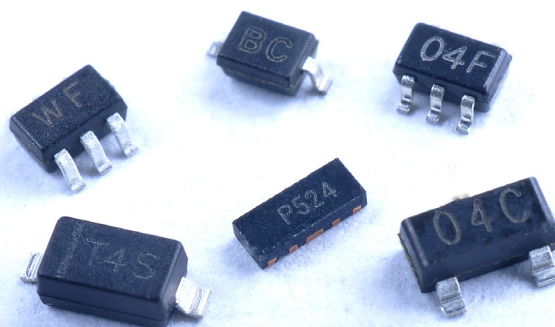




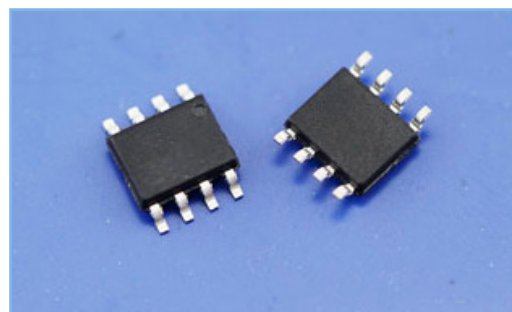
TVS/ESD Arrays

RLSO8A2.88LV Series

TVS/ESD Arrays - RLSO8A2.88LV Series

Features

- 600 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 μs)
- 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

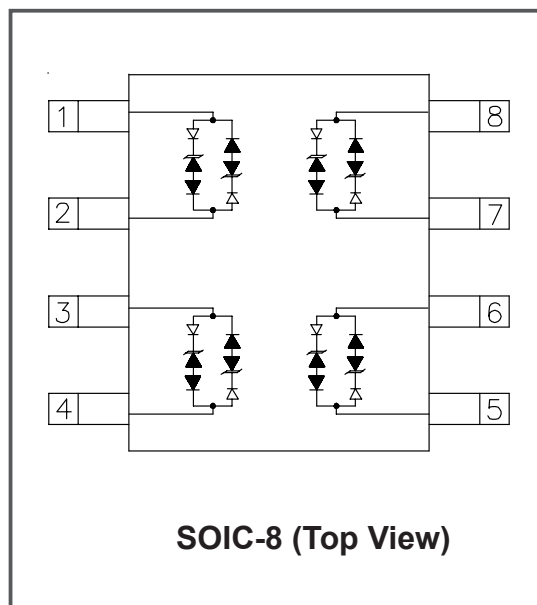
Applications

- 10/100/1000 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 - RLSO8A2.88LV Series

Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{pk}	600	Watts
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{pp}	30	A
ESD per IEC 61000-4-2 (Air)	V_{ESD}	30	Kv
ESD per IEC 61000-4-2 (Contact)	V_{ESD}	25	Kv
Lead Soldering Temperature	T_k	260 (10 sec.)	°C
Operating Temperature	T_J	-55 to +125	°C
Storage Temperature	T_{STG}	-55 to +150	°C

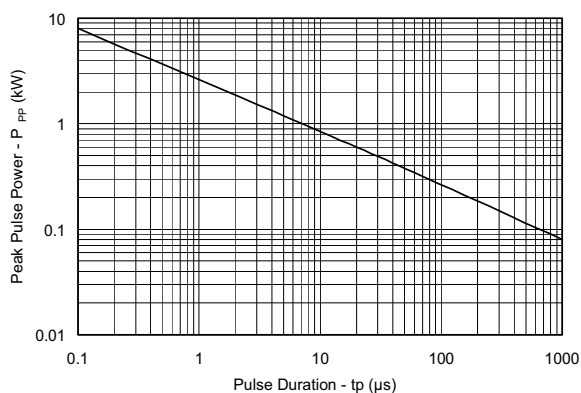
Electrical Characteristics Per Lin (@ 25°C Unless Otherwise Specified)

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	μA
Clamping Voltage	V_C	$I_{pp} = 1A, t_p = 8/20\mu s$ (Each Line)	-	-	4.6	V
Clamping Voltage	V_C	$I_{pp} = 5A, t_p = 8/20\mu s$ (Each Line)	-	-	15	V
Clamping Voltage	V_C	$I_{pp} = 24A, t_p = 8/20\mu s$ (Each Line)	-	-	17	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$ (Each Line)	-	5	8	pF

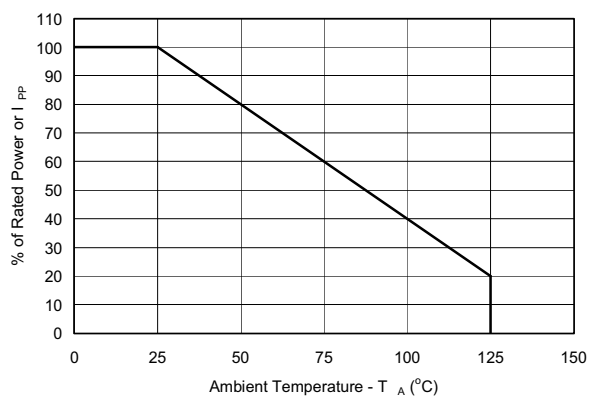
TVS/ESD Arrays - RLSO8A2.88LV Series

Typical Characteristics

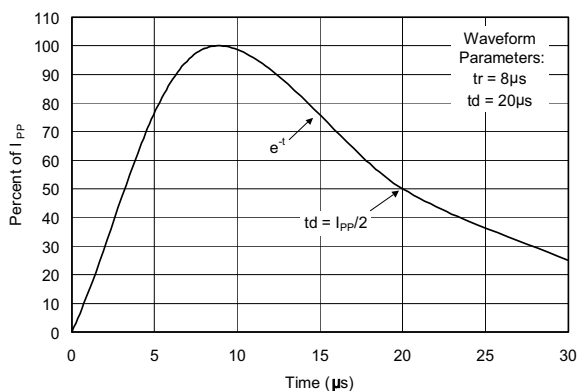
Non-Repetitive Peak Pulse Power vs. Pulse Time



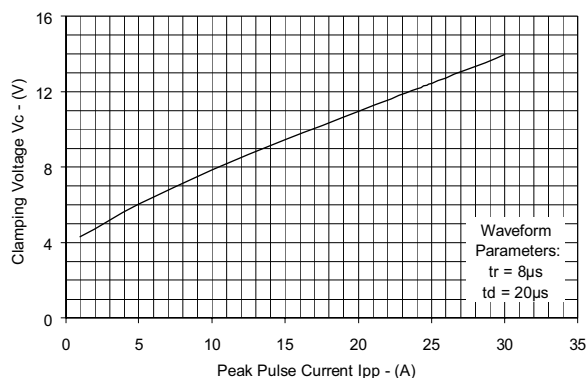
Power Derating Curve



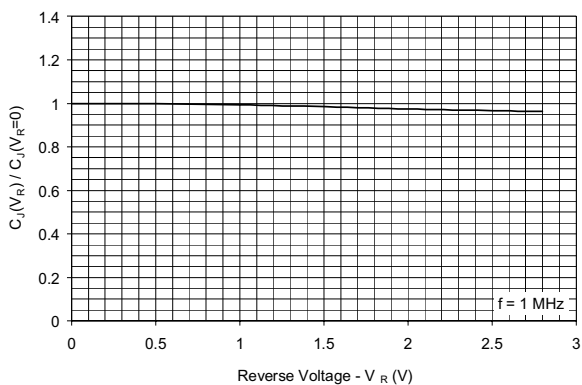
Pulse Waveform



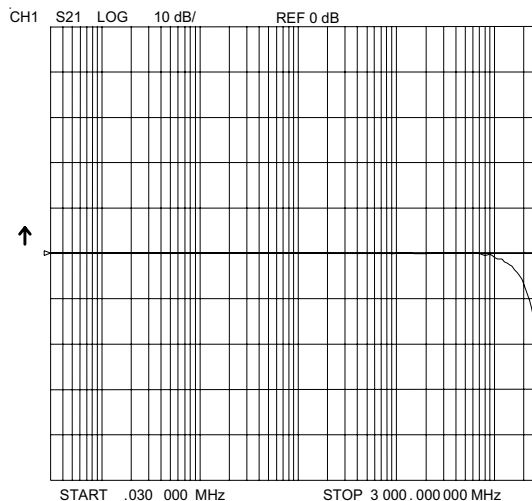
Clamping Voltage vs. Peak Pulse Current



Normalized Capacitance vs. Reverse Voltage

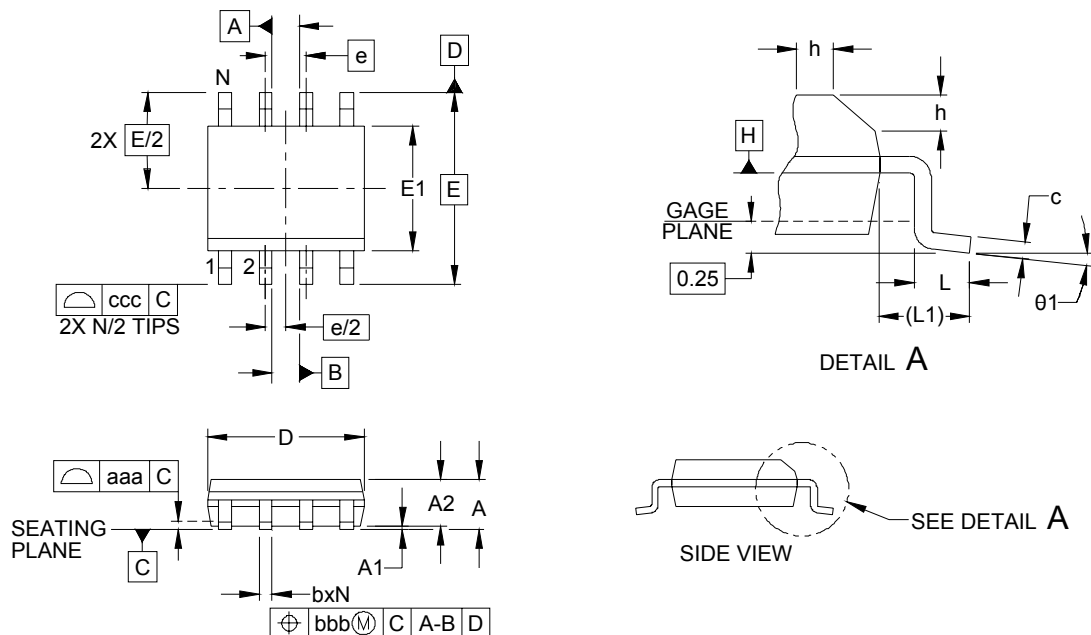


Insertion Loss S21



TVS/ESD Arrays - RLSO8A2.88LV Series

Package dimension SOIC-08



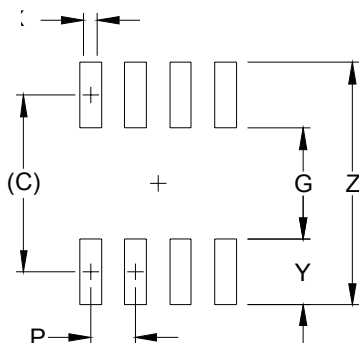
NOTES:

1. CONTROLLING DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).
2. DATUMS **-A-** AND **-B-** TO BE DETERMINED AT DATUM PLANE **-H-**
3. DIMENSIONS "E1" AND "D" DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.

Dimensions						
DIM	Inches			Millimeters		
	Min	Nom	Max	Min	Nom	Max
A	0.053	-	0.069	1.35	-	1.75
A1	0.004	-	0.010	0.10	-	0.25
A2	0.049	-	0.065	1.25	-	1.65
b	0.012	-	0.020	0.31	-	0.51
c	0.007	-	0.010	0.17	-	0.25
D	0.189	0.193	0.197	4.80	4.90	5.00
E1	0.150	0.154	0.157	3.80	3.90	4.00
E	0.236 BSC			6.00 BSCBSC		
e	0.050 BSC			1.27BSC		
h	0.010	-	0.20	0.25	-	0.50
L	0.016	0.028	0.40	0.40	0.72	1.04
L1	(0.041)			(1.04)		
N	8			8		
θ1	0°	-	8°	0°	-	8°
aaa	0.004			0.10		
bbb	0.010			0.25		
ccc	0.008			0.20		

TVS/ESD Arrays - RLSO8A2.88LV Series

Soldering footprint

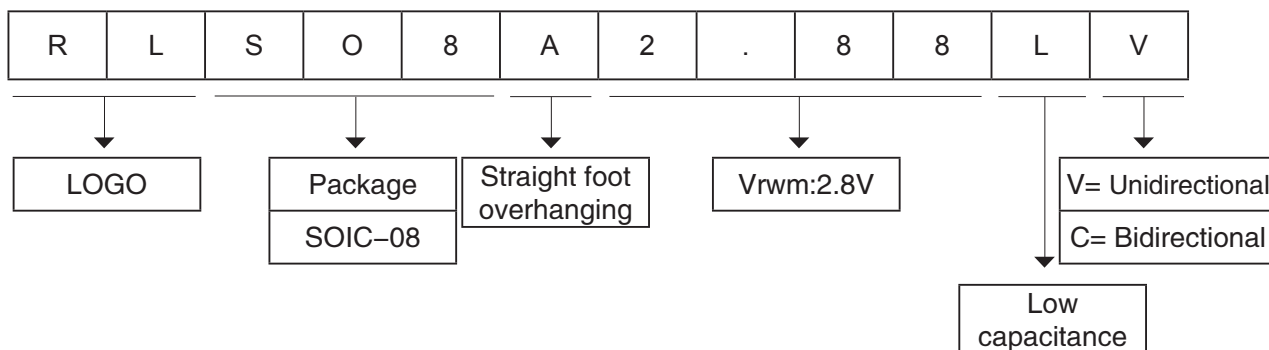


Dimensions		
DIM	Inches	Millimeters
C	(0.205)	(5.20)
G	0.118	3.00
P	0.050	1.27
X	0.04	0.60
Y	0.087	2.20
Z	0.291	7.40

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.
RLSO8A2.88LV	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