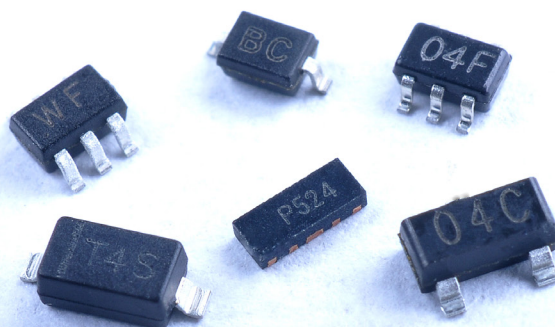




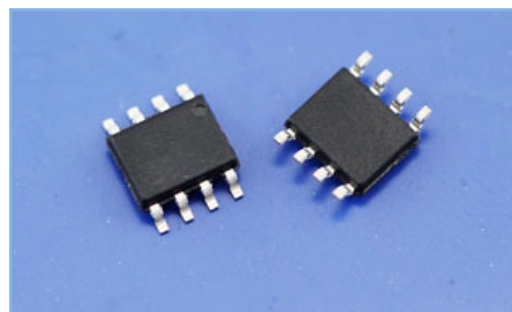
TVS/ESD Arrays

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 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

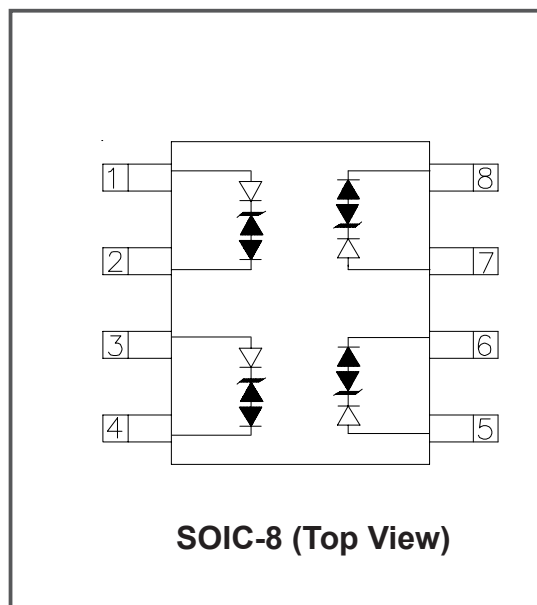
Applications

- 10/100 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.)	°C
Operating Temperature	T_J	-55 to +125	°C
Storage Temperature	T_{STG}	-55 to +150	°C

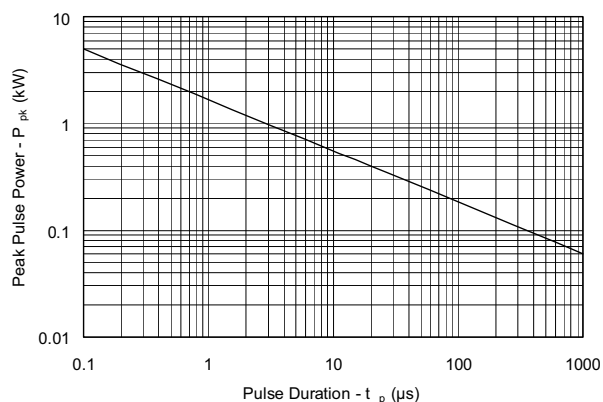
Electrical Characteristics Per Lin (@ 25°C Unless Otherwise Specified)

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)	-	-	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

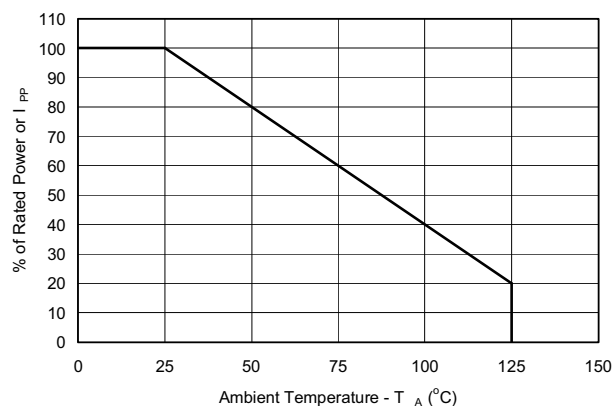
TVS/ESD Arrays - RLSO8A2.84LV Series

Typical Characteristics

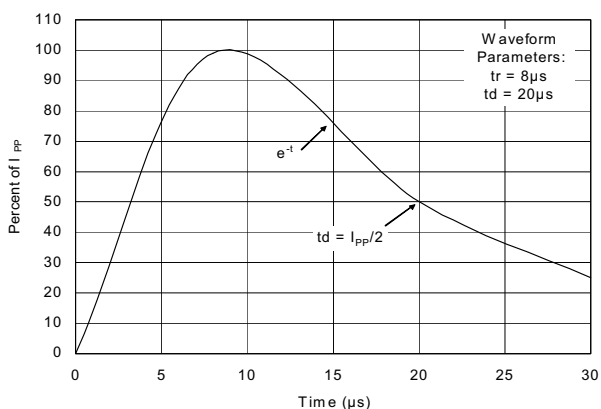
Non-Repetitive Peak Pulse Power vs. Pulse Time



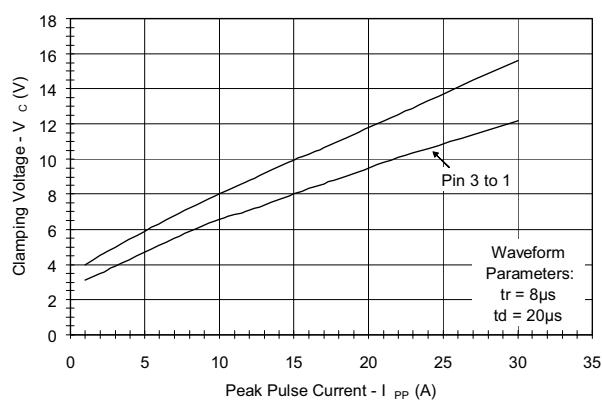
Power Derating Curve



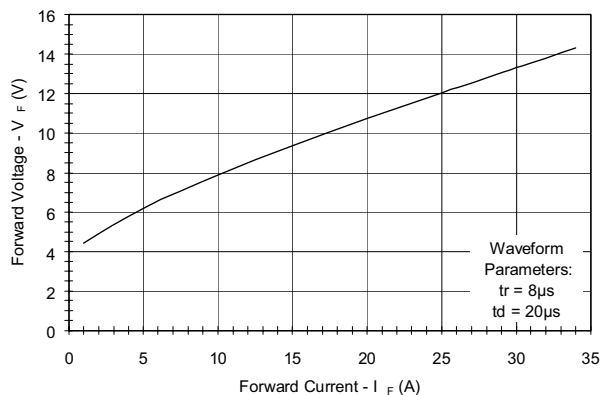
Pulse Waveform



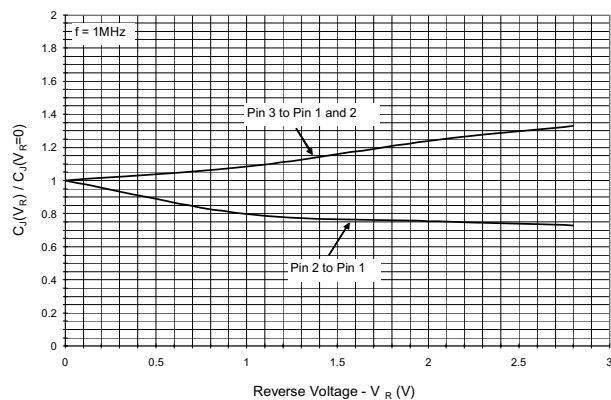
Clamping Voltage vs. Peak Pulse Current



Forward Voltage vs. Forward Current

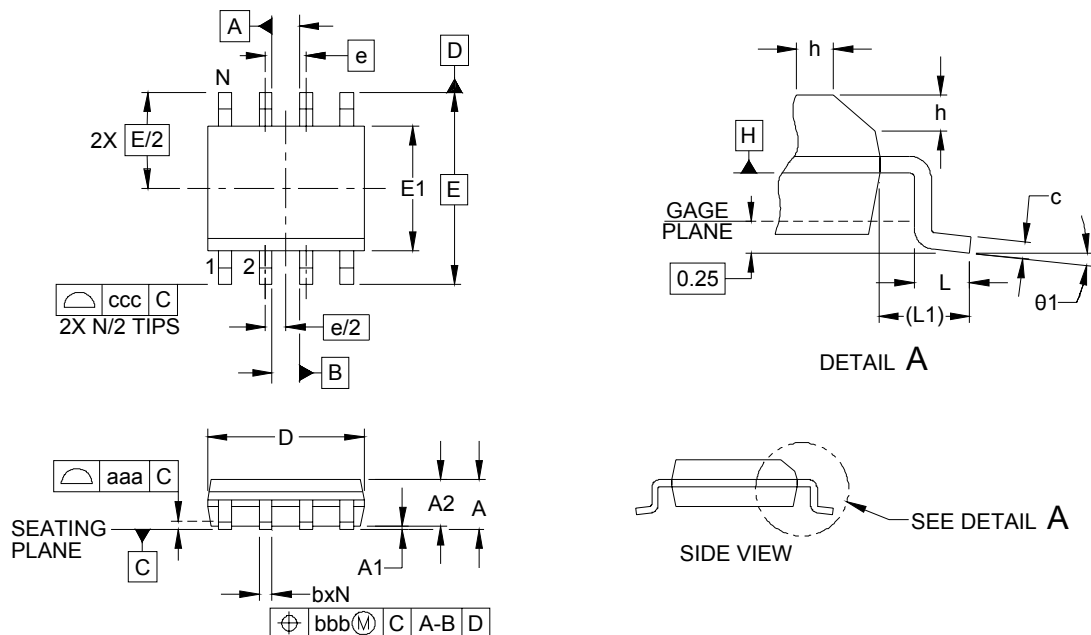


Normalized Capacitance vs. Reverse Voltage



TVS/ESD Arrays - RLSO8A2.84LV Series

Package Dimension SOIC-08



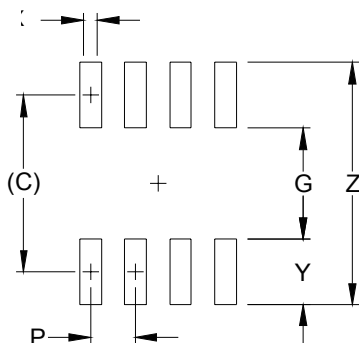
NOTES:

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 - RLSO8A2.84LV Series

Soldering footprint

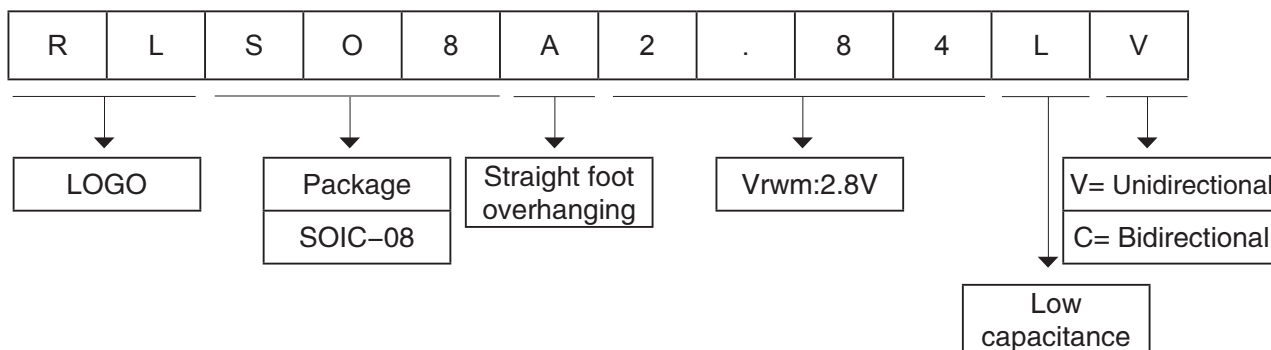


Dimensions		
DIM	Inches	Millimeters
C	(0.205)	(5.20)
G	0.118	3.00
P	0.050	1.27
X	0.04	0.60
Y	0.087	2.20
Z	0.291	7.40

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.

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