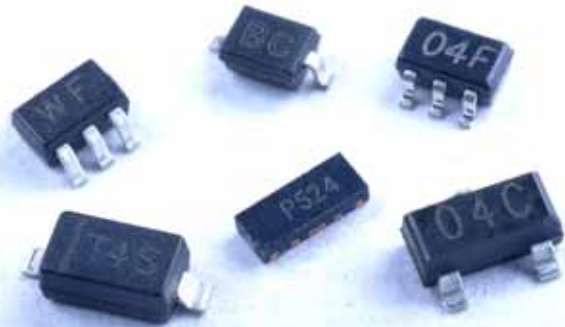


ELECTRONICS



TVS/ESD Arrays

RLST236AxxxV Series

TVS/ESD Arrays - RLST236AxxxV Series

Features

- 350 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)
- One device protects one unidirectional line
- Two devices protect two high-speed line pairs
- Low leakage current
- Low operating and clamping voltages
- Solid-state EPD TVS process technology



Mechanical Characteristics

- SOT-23-6L package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel per EIA 481
- Lead Finish: Matte tin
- RoHS Compliant

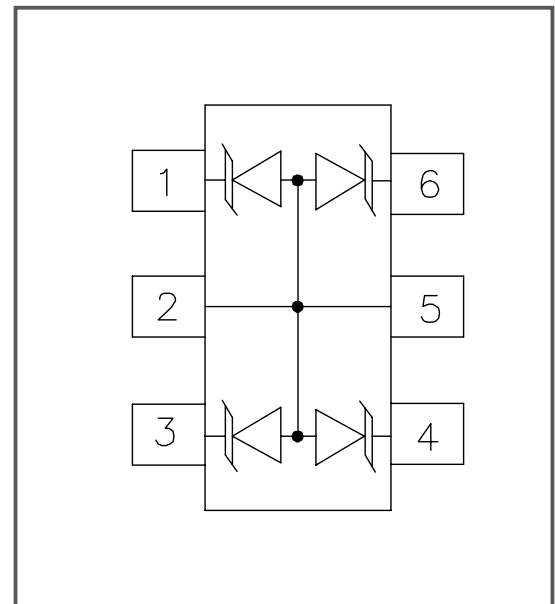
Applications

- USB Power & Data Line Protection
- Ethernet 10BaseT
- I²C Bus Protection
- Video Line Protection
- T1/E1 secondary IC Side Protection
- Portable Electronics
- Microcontroller Input Protection
- WAN/LAN Equipment
- ISDN S/T Interface

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 - RLST236AxxxV Series

Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power (tp =8/20μs)	P _{pk}	350	Watts
ESD per IEC 61000-4-2 (Air) 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

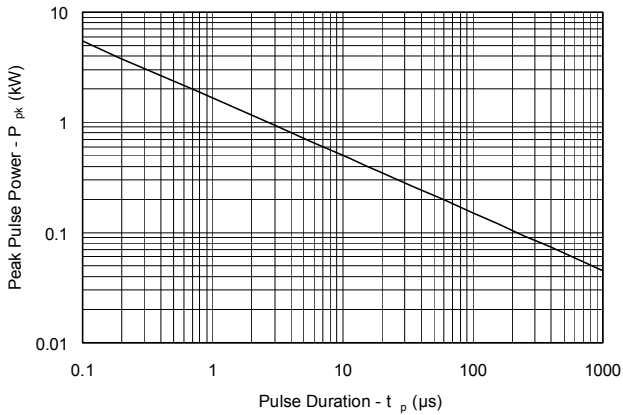
Electrical Characteristics Per Lin (@ 25°C Unless Otherwise Specified)

Type Number	Peak Power Dissipation @8/20μS P _{ppm}	Reverse Stand-Off Voltage	Peak Pulse Voltage @8/20μS	Peak Pulse Current @8/20μS	Reverse Leakage @V _{rwm}	Maximum Capacitance @1MHZ
		V _{rwm}	V _{c@IPP}	IPP	IR@V _{rwm}	Co
		Max			Max	Max
	W	V	V	A	μA	pF
RLST236A054V	350	5	9.8/13	5/24	5	200
RLST236A124V	350	12	20/25	5/15	1	90
RLST236A154V	350	15	24/29	5/12	1	70
RLST236A244V	350	24	40/44	5/8	1	50

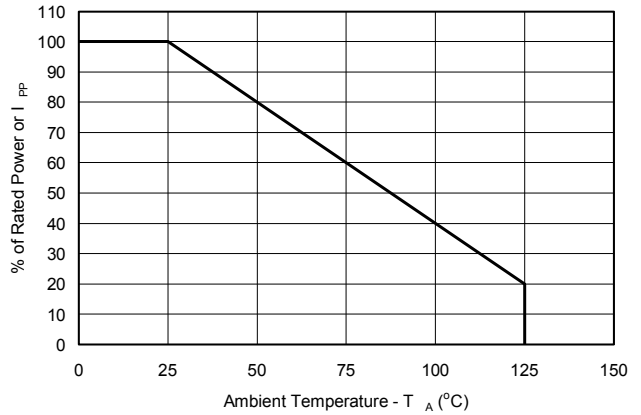
TVS/ESD Arrays - RLST236AxxxV Series

Typical Characteristics

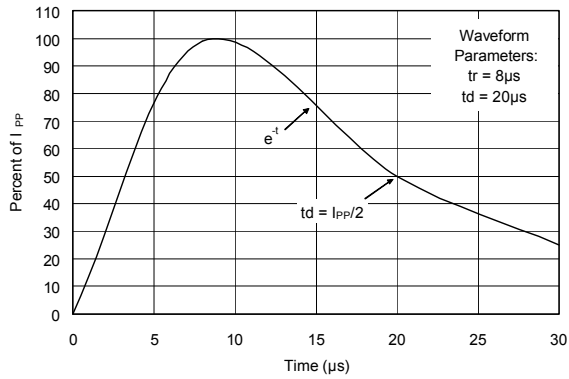
Non-Repetitive Peak Pulse Power vs. Pulse Time



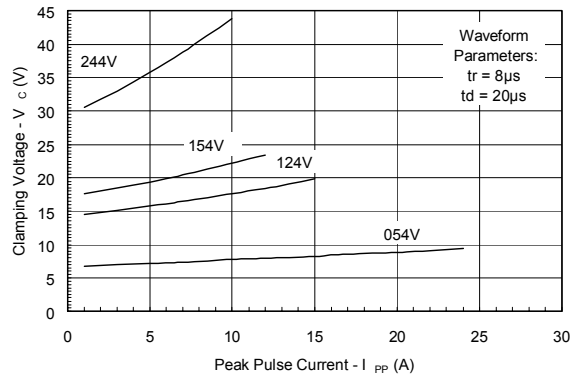
Power Derating Curve



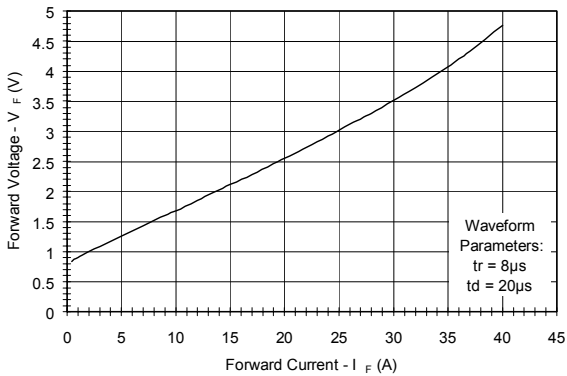
Pulse Waveform



Clamping Voltage vs. Peak Pulse Current

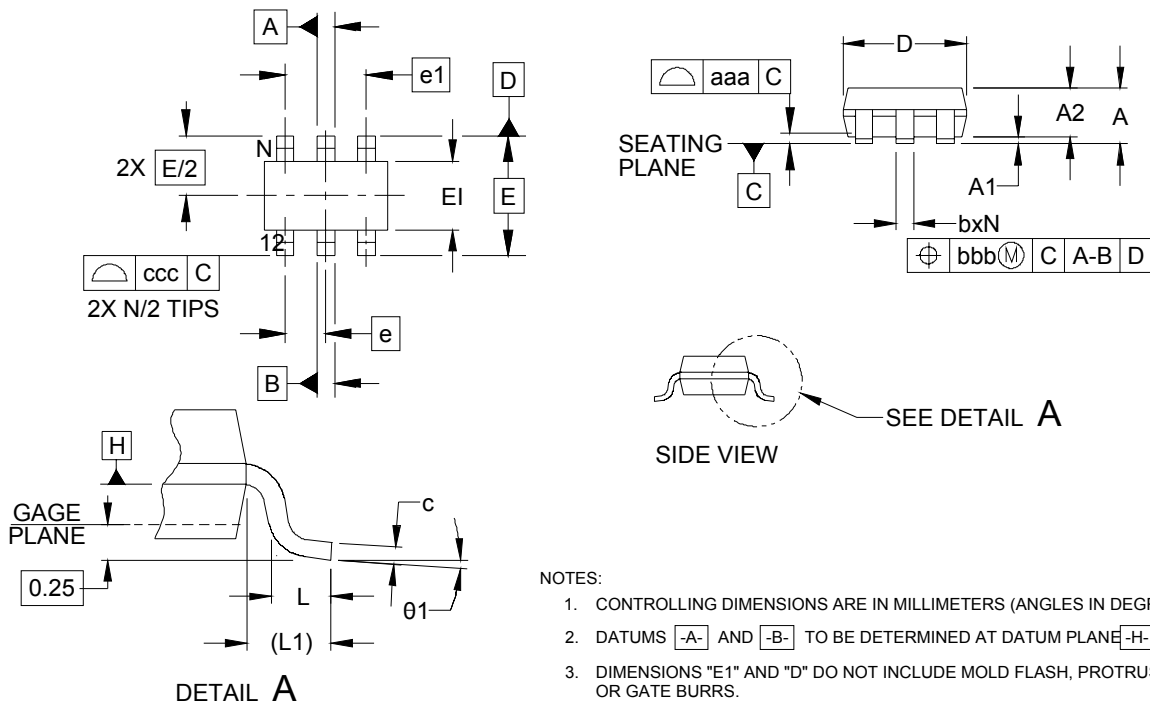


Forward Voltage vs. Forward Current



TVS/ESD Arrays - RLST236AxxxV Series

Package dimension SOT-23-6L

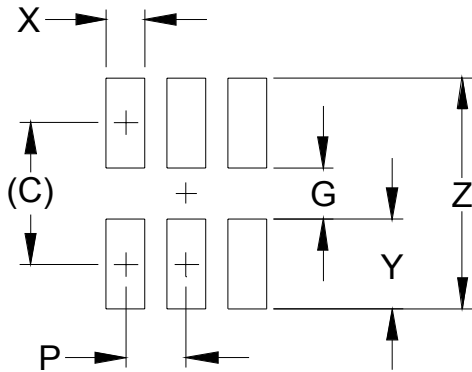


- NOTES:
1. CONTROLLING DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).
 2. DATUMS $-A-$ AND $-B-$ TO BE DETERMINED AT DATUM PLANE $-H-$
 3. DIMENSIONS "E1" AND "D" DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.

DIM	Dimensions					
	Inches			Millimeters		
	Min	Nom	Max	Min	Nom	Max
A	0.035	-	0.057	0.90	-	1.45
A	0.000	-	0.006	0.00	-	0.15
A2	0.035	0.045	0.051	0.90	1.15	1.30
b	0.010	-	0.020	0.25	-	0.50
c	0.003	-	0.009	0.08	-	0.22
D	0.110	0.114	0.122	2.80	2.90	3.10
E1	0.60	0.063	0.069	1.50	1.60	1.75
E		0.110 BSC			2.80 BSC	
e		0.037 BSC			0.95 BSC	
e1		0.075 BSC			1.90 BSC	
L	0.012	0.018	0.024	0.30	0.45	0.60
L1		(0.024)			(0.60)	
N		6			6	
θ	0°	-	10°	°	-	10°
aaa		0.004			0.10	
bbb		0.008			0.20	
ccc		0.008			0.20	

TVS/ESD Arrays - RLST236AxxxV Series

Recommended soldering footprint

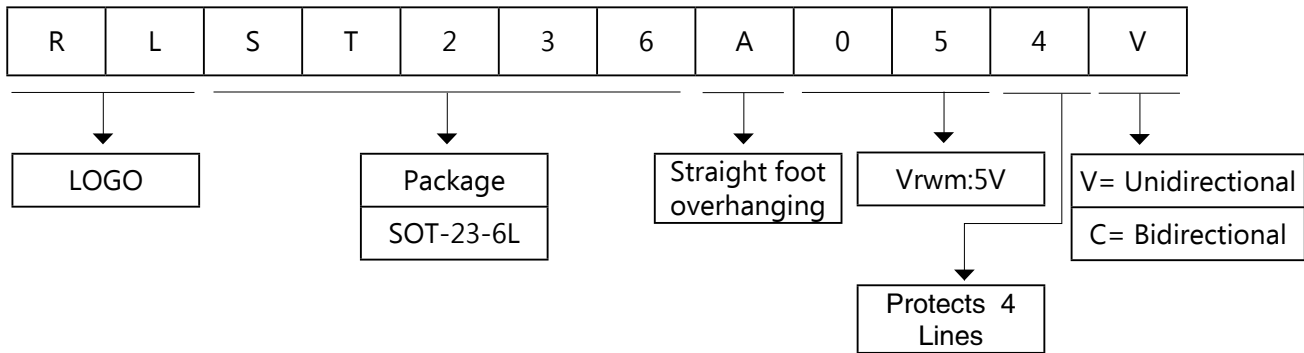


DIMENSIONS		
DIM	INCHES	MILLIMETERS
C	(0.098)	(2.50)
G	0.055	1.40
P	0.037	0.95
X	0.024	0.60
Y	0.043	1.10
Z	0.141	3.60

NOTES:

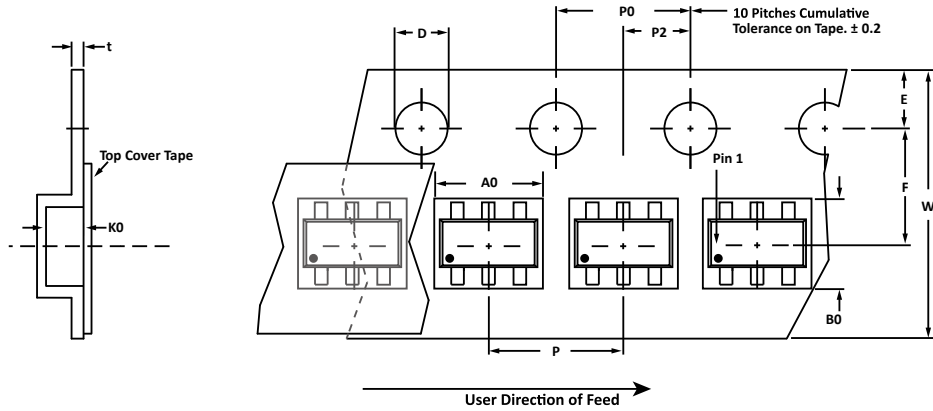
1. THIS LAND PATTERN IS FOR REFERENCE PURPOSES ONLY. CONSULT YOUR MANUFACTURING GROUP TO ENSURE YOUR COMPANY'S MANUFACTURING GUIDELINES ARE MET.

Part Number Code



TVS/ESD Arrays - RLST236AxxxV Series

Ordering Information



SPECIFICATIONS

REEL DIA.	TAPE WIDTH	A0	B0	k0	D	E	F	W	P0	P2	P	tmax
178mm (7")	8mm	3.20 ± 0.10	3.20 ± 0.10	1.65 ± 0.10	1.50 ± 0.10	1.75 ± 0.10	3.50 ± 0.05	8.00 ± 0.30	4.00 ± 0.10	2.00 ± 0.05	4.00 ± 0.10	0.25

NOTES

1. Dimensions are in millimeters.
2. Surface mount product is taped and reeled in accordance with EIA-481.
3. Suffix - T7 = 7" Reel - 3,000 pieces per 8mm tape.
4. Marking on Part - marking code (see page 2) and pin one defined by dot on package.

Package outline, pad layout and tape specifications per document number 06013.R5 2/11

Ordering Information

Part Number	Package	Min. Order Qty.
RLST236AxxxV	SOT-23-6L	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

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.
-