

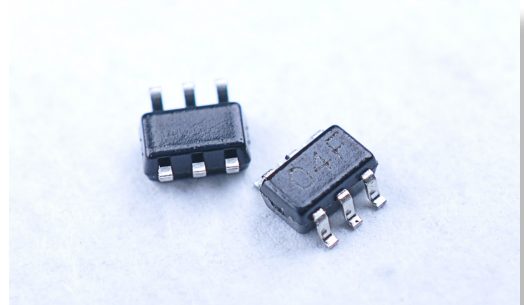
TVS/ESD Arrays

RLST236A054LV Series

TVS/ESD Arrays - RLST236A054LV 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 capacitance
- 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

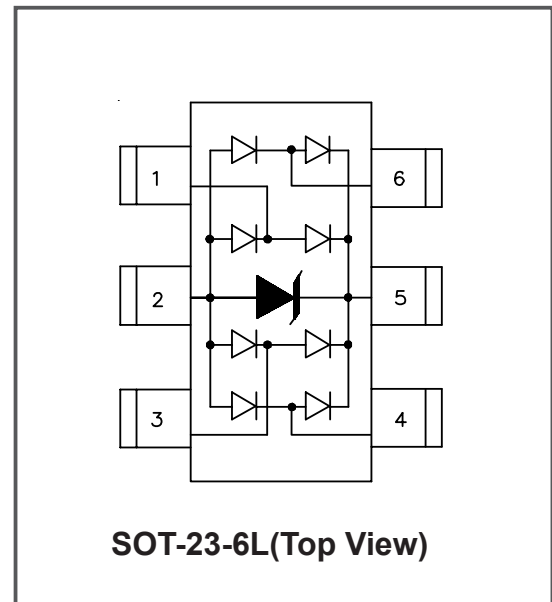
Applications

- 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



SOT-23-6L(Top View)

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Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power (tp =8/20μs)	Ppk	350	Watts
ESD per IEC 61000-4-2 (Air)	VESD	15	kV
ESD per IEC 61000-4-2 (Contact)		8	
Lead Soldering Temperature	TK	260 (10 sec.)	°C
Operating Temperature	TJ	-55 to +125	°C
Storage Temperature	TSTG	-55 to +150	°C

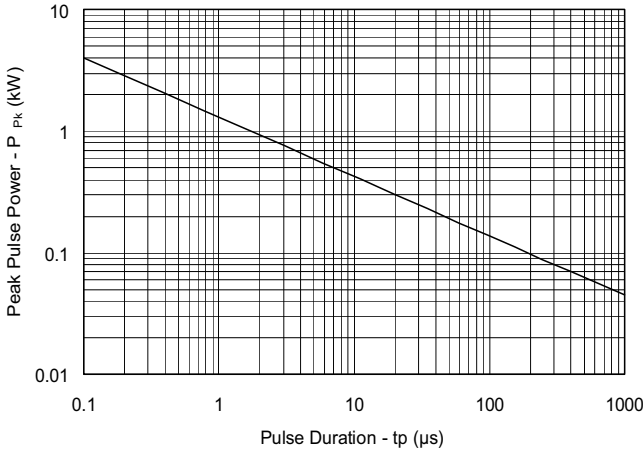
Electrical Characteristics Per Lin (@ 25°C Unless Otherwise Specified)

Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	VRWM	-	-	-	5	V
Reverse Breakdown Voltage	VBR	I _t =1mA	6	7	-	V
Reverse Leakage Current	I _R	VRWM=5V, T=25°C Pin 5 to 2	-	-	5	μA
Clamping Voltage	VC	I _{pp} =1A, t _p = 8/20μs Any I/O pin to Ground	-	-	12	V
Junction Capacitance	C _j	VR = 0V, f = 1MHz Any I/O pin to Ground	-	1.2	1.5	pF
		VR = 0V, f = 1MHz Between I/O pins	-	0.7	-	pF

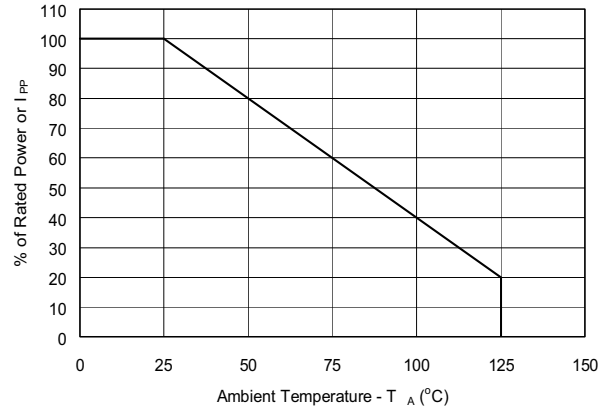
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Typical Characteristics

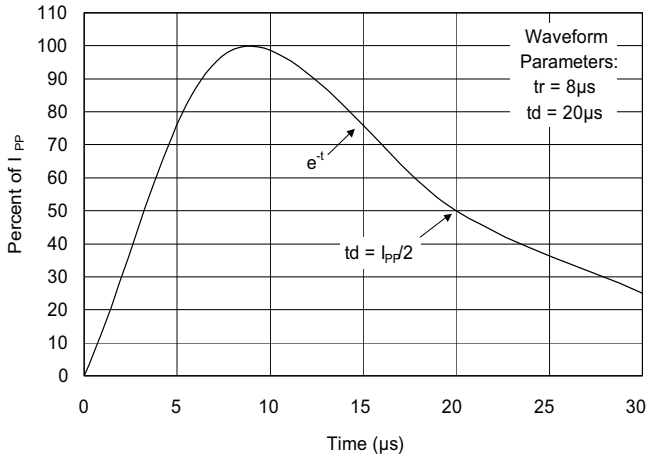
Non-Repetitive Peak Pulse Power vs. Pulse Time



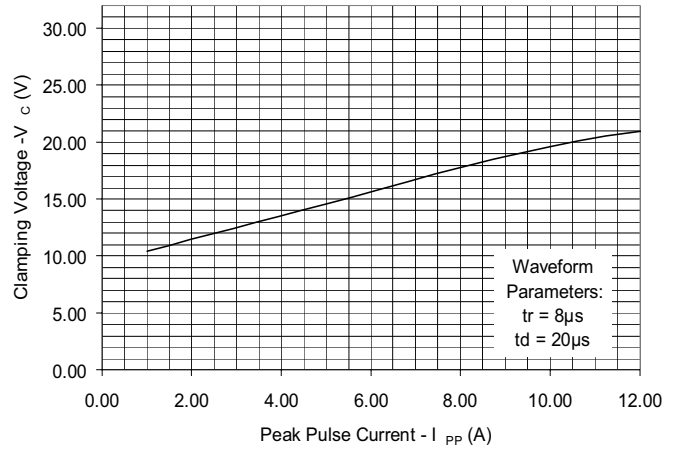
Power Derating Curve



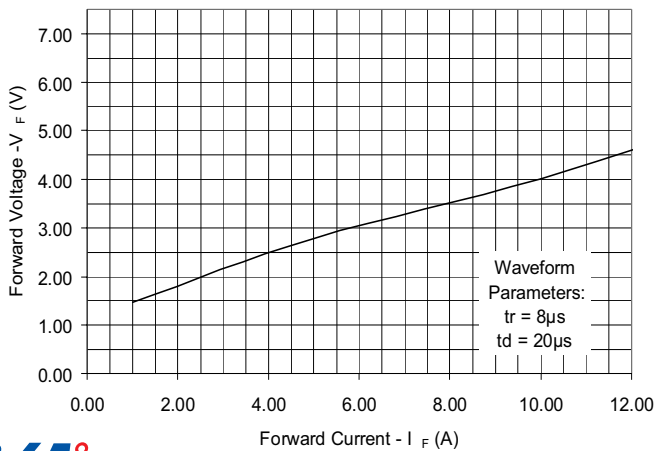
Pulse Waveform



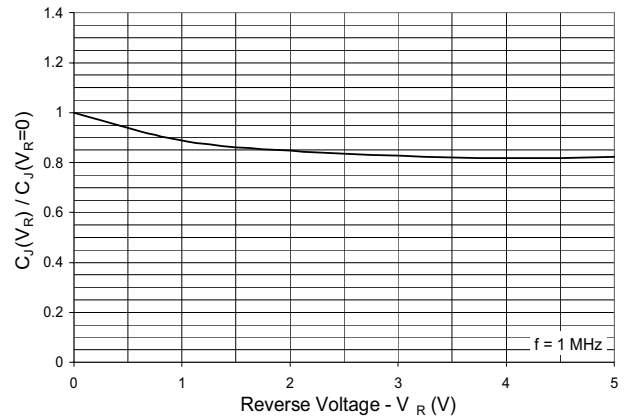
Clamping Voltage vs. Peak Pulse Current



Forward Voltage vs. Forward Current

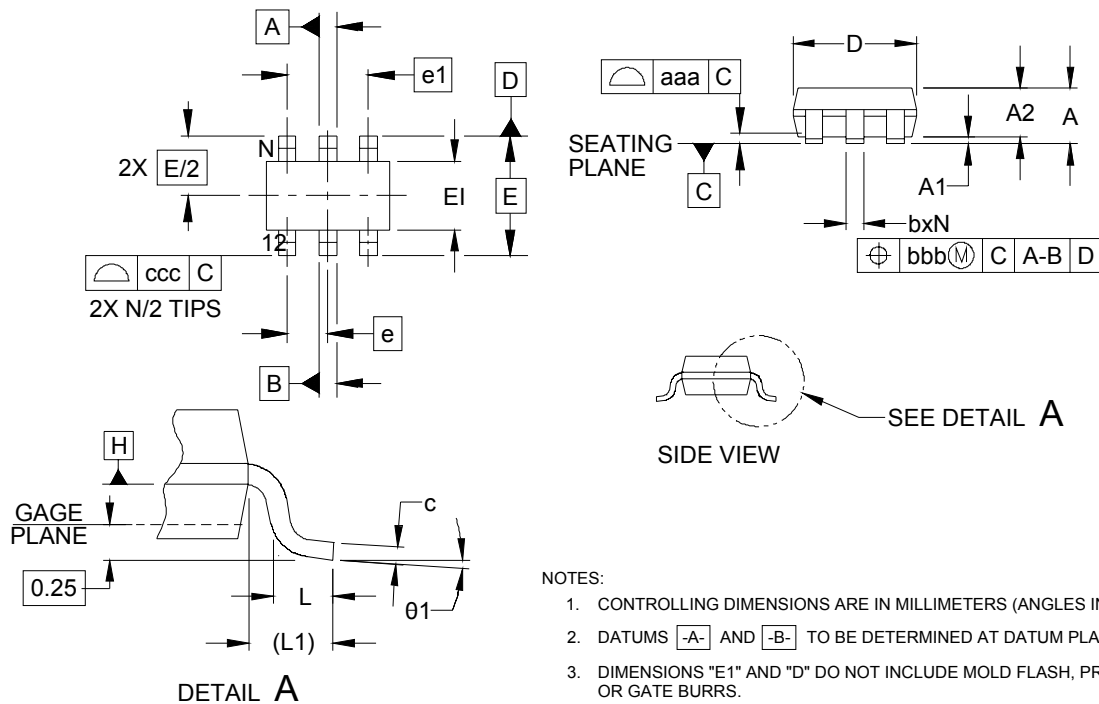


Normalized Capacitance vs. Reverse Voltage



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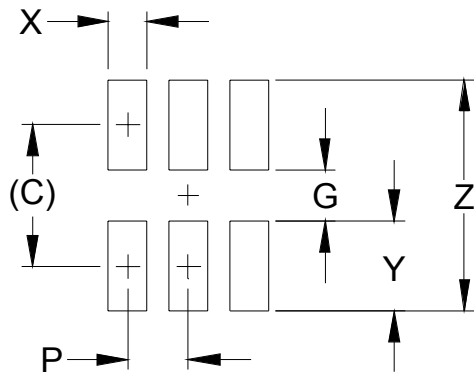
Package dimension SOT-23-6L



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	

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Soldering footprint

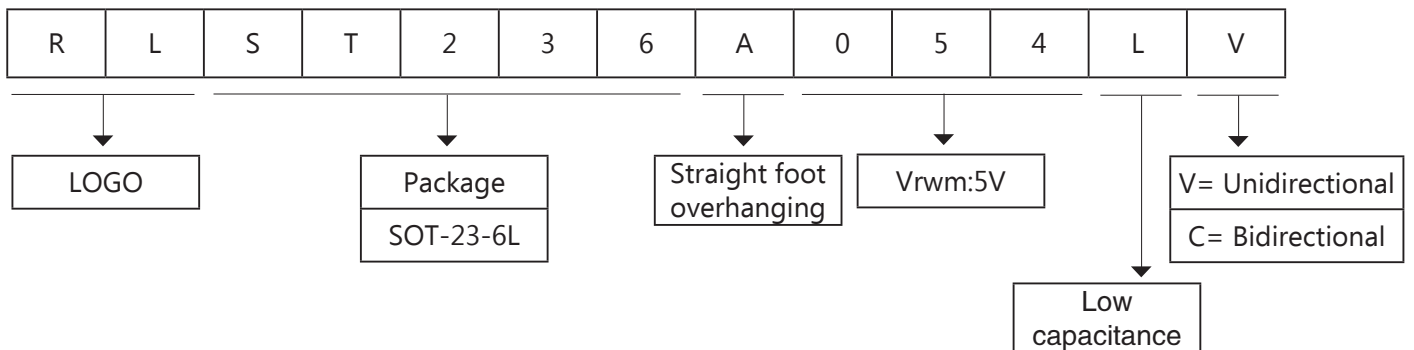


DIMENSIONS		
DIM	INCHES	MILLIMETERS
C	(0.098)	(2.50)
G	0.055	1.40
P	0.037	0.95
X	0.024	0.60
Y	0.043	1.10
Z	0.141	3.60

NOTES:

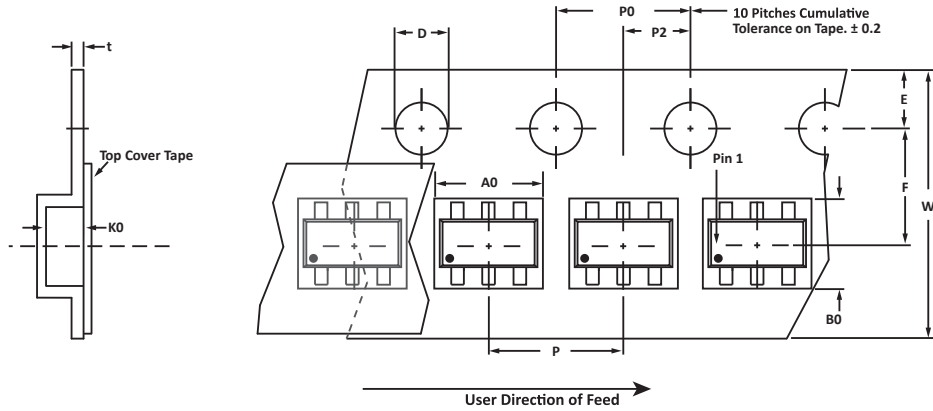
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Part Number Code



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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

- Dimensions are in millimeters.
- Surface mount product is taped and reeled in accordance with EIA-481.
- Suffix - T7 = 7" Reel - 3,000 pieces per 8mm tape.
- 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.
RLST236A054LV	SOT-23-6L	3000pcs

Warehouse Storage Conditions of Products

Storage Conditions:

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

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