



TVS/ESD Arrays

RLST23AxxxC Series

TVS/ESD Arrays - RLST23AxxxC Series

Features

- 350 Watts peak pulse power ($t_p = 8/20\mu s$)
- Two devices protect two high-speed line pairs
- Low leakage current
- Low operating and clamping voltages
- Solid-state EPD TVS process technology
- 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)



Mechanical Characteristics

- JEDEC SOT-23 Package
- Molding Compound Flammability Rating : UL 94V-0
- Weight 8.0 Milligrams (Approximate)
- Quantity Per Reel : 3,000pcs
- Reel Size : 7 inch
- Lead Finish : Lead Free

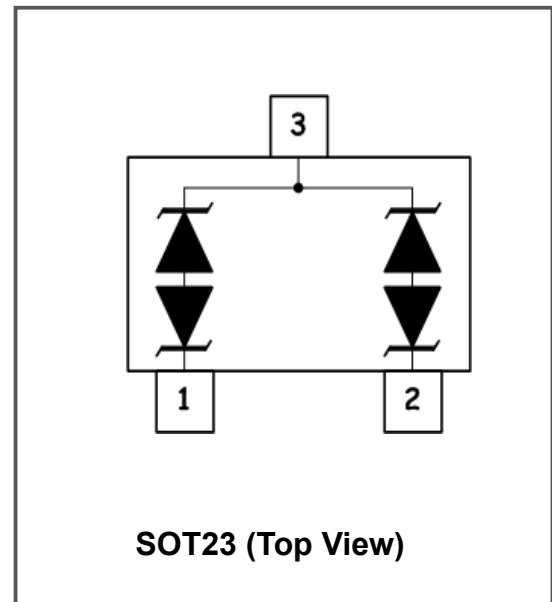
Applications

- Cellular Handsets and Accessories
- Portable Electronics
- Industrial Controls
- Set-Top Box
- Servers, Notebook, and Desktop PC

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



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Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power (tp =8/20μs)	Ppk	350	Watts
Lead Soldering Temperature	T _L	260 (10 sec.)	°C
Operating Temperature	T _J	-55 to +150	°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 Pppm	Reverse Stand-Off Voltage	Peak Pulse Voltage @8/20μS	Peak Pulse Current @8/20μS	Reverse Leakage @Vrwm	Maximum Capacitance @1MHZ
		Vrwm	Vc@IPP	IPP	IR@Vrwm	Co
		Max			Max	Max
	W	V	V	A	μA	pF
RLST23A032C	350	3.3	7	20	40	300
RLST23A052C	350	5	9.8	17	10	120
RLST23A082C	350	8	13.4	12	1	75
RLST23A122C	350	12	19	11	1	60
RLST23A152C	350	15	24	10	1	60
RLST23A182C	350	18	29	9	1	55
RLST23A242C	350	24	43	7	1	40
RLST23A362C	400	36	60	5	1	30

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Typical Characteristics

Fig1. 8/20 μ s Pulse Waveform

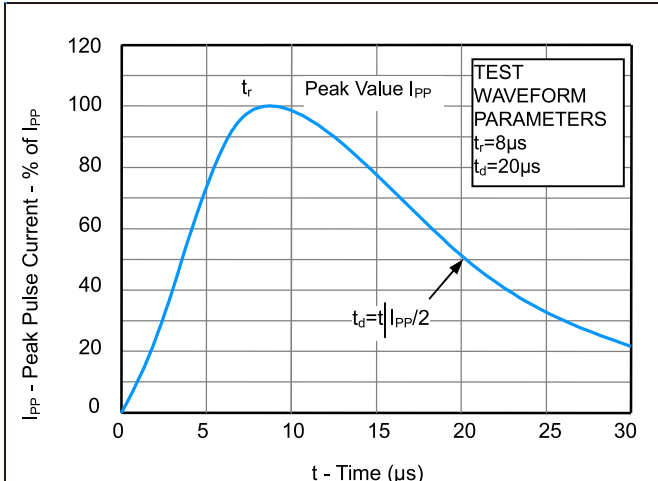


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

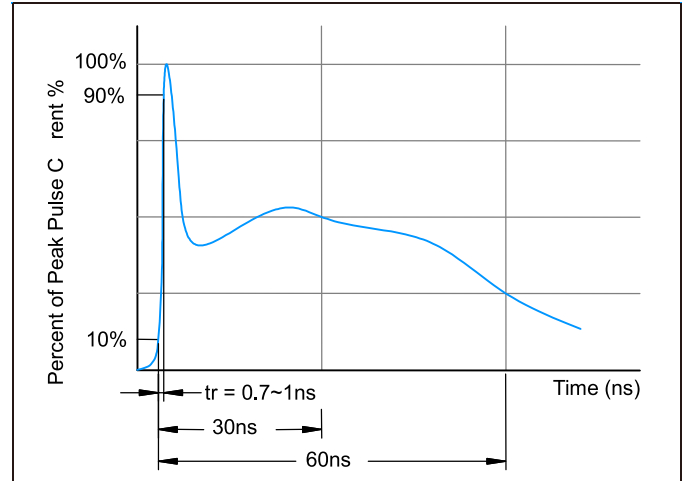


Fig3. ESD Clamping (+8KV Contac per IEC61000-4-2)

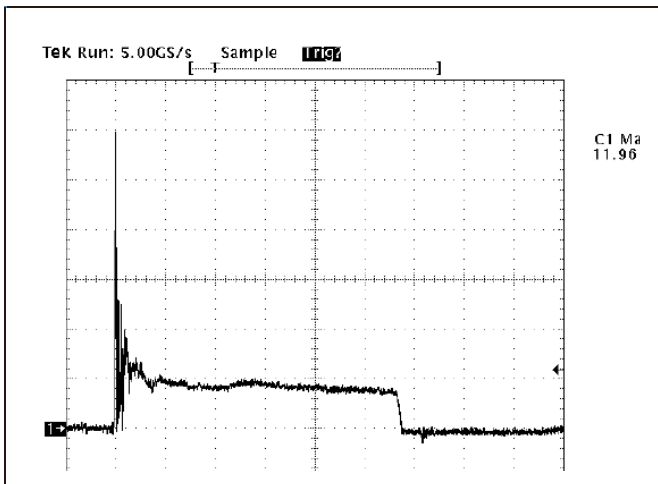
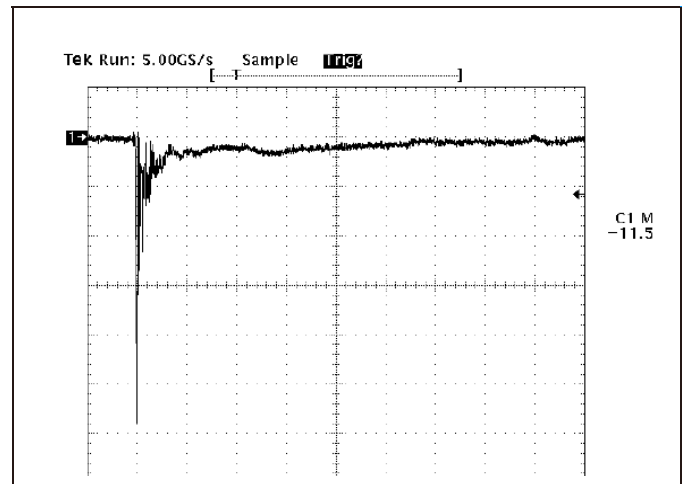
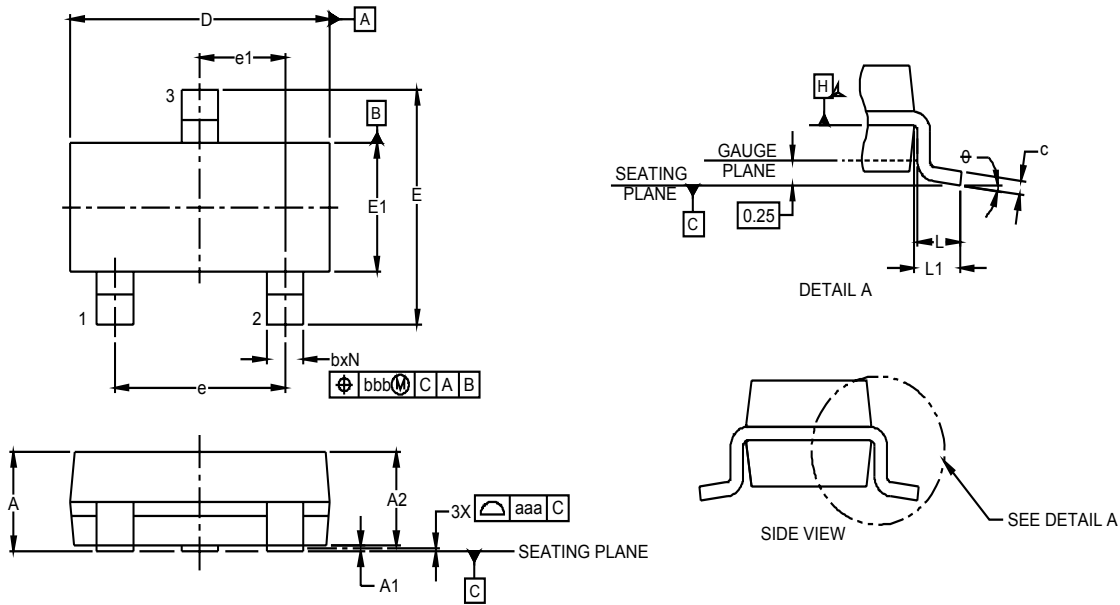


Fig4. ESD Clamping (-8KV Contac per IEC61000-4-2)



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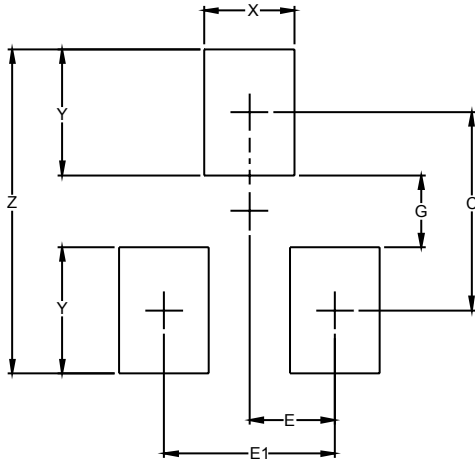
Package dimension SOT-23



Dimensions						
DIM	Inches			Millimeters		
	Min	Nom	Max	Min	Nom	Max
A	.035	-	.044	0.89	-	1.12
A1	-	-	.004	0.01	-	0.10
A2	.035	.037	.040	0.01	-	0.10
b	.012	-	.020	0.30	-	0.51
c	.003	-	.007	0.08	-	0.18
D	.110	.114	.120	2.80	2.90	3.04
E	.082	.093	.104	2.10	2.37	2.64
E1	0.47	.051	.055	1.20	1.30	1.40
e		.075			1.90 BCS	
e1		.037			0.95 BCS	
L	.015	.020	.024	0.40	0.50	0.60
L1		.022			(0.55)	
N		3			3	

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Recommended soldering footprint

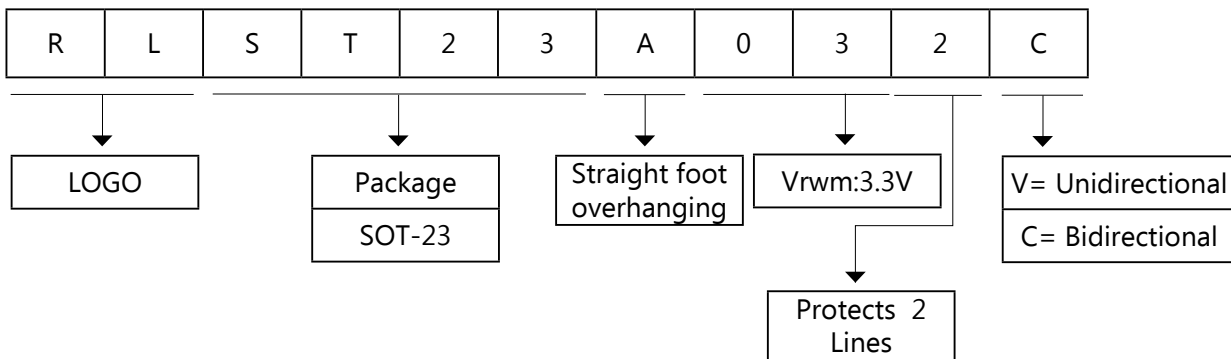


DIMENSIONS		
DIM	INCHES	MILLIMETERS
C	(.087)	(2.20)
E	.037	0.95
E1	.075	1.90
G	.031	0.80
X	.039	1.00
Y	.055	1.40
Z	.141	3.60

NOTES:

1. THIS LAND PATTERN IS FOR REFERENCE PURPOSES ONLY
CONSULT YOUR MANUFACTURING GROUP TO ENSURE YOUR
COMPANY'S MANUFACTURING GUIDELINES ARE MET.
2. REFERENCE IPC-SM-782A.

Part Number Code



Ordering Information

Part Number	Package	Min. Order Qty.
RLST23AxxxC	SOT-23	3000pcs

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