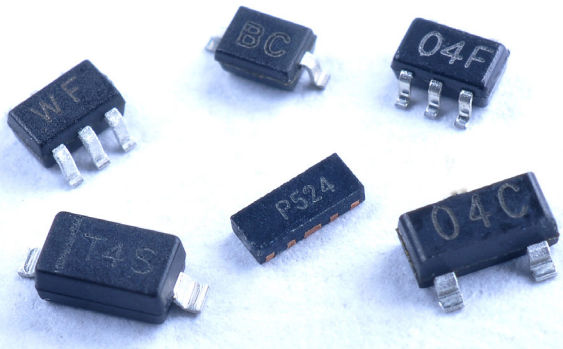
RUILON
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TVS/ESD Arrays

RLSO10A055LV Series

361° Circuit Protection System

Specifications are subject to change without notice.

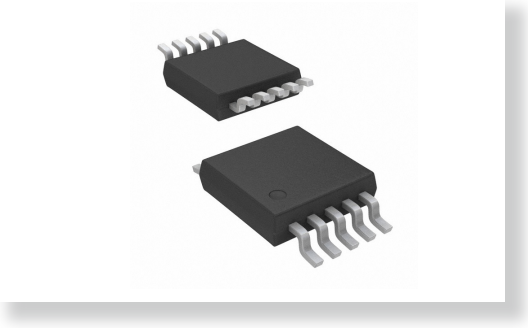
Please refer to http://www.ruilon.com for current information.

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TVS/ESD Arrays - RLSO10A055LV Series

Features

- ESD protection for high-speed data lines to
- IEC 61000-4-2 (ESD) ±18kV (air), ±12kV (contact)
- IEC 61000-4-5 (Lightning) 5A (8/20μs)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- Array of surge rated diodes with internal TVS Diode
- Small package saves board space
- Protects four I/O lines and one Vcc line
- Low capacitance: 0.3pF typical (I/O to I/O)
- Low clamping voltage
- Low operating voltage: 5.0V
- Solid-state silicon-avalanche technology



Mechanical Characteristics

- JEDEC MSOP 10L package
- Molding compound flammability rating: UL 94V-0
- Marking : Marking code and date code
- Packaging : Tape and Reel per EIA 481
- Lead Finish: Matte Tin
- RoHS/WEEE Compliant

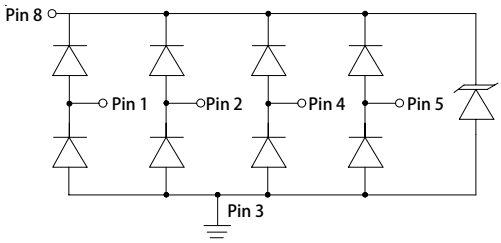
Applications

- High Definition Multi-Media Interface (HDMI)
- Digital Visual Interface (DVI)
- 10/100/1000 Ethernet
- Monitors and Flat Panel Displays
- Notebook Computers
- Set Top Box
- Projection TV

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



MSOP-10 (Top View)

TVS/ESD Arrays - RLSO10A055LV Series

Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak pulse power (tp=8/20 s waveform)	P_{pp}	125	Watts
ESD voltage (HBM contact)	VESD	±8	A
ESD voltage (AIR contact)	V_{ESD}	±15	Kv
Operating Temperature	TJ	-55~+150	°C
Storage Temperature	TSTG	-55~+150	°C

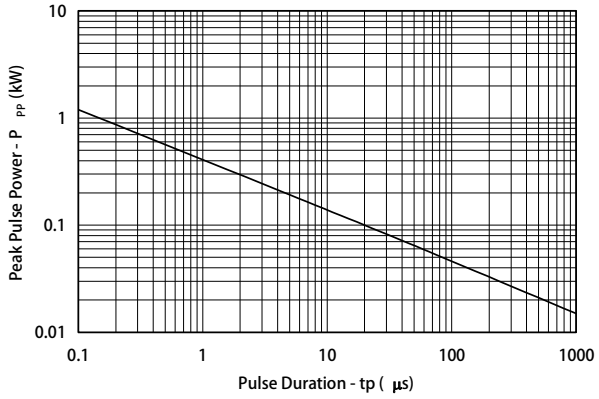
Electrlcal Characterlstlcs Per Lin (@ 25°C Unless Otherwise Specified)

Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voitage	V_{RWM}	Pin 3 to 8	-	-	5	V
Reverse breakdown voltage	VBR	It = 1mA Pin 3 to 8	6.0	-	-	V
Reverse Leakage Current	I_R	VRWM = 5V, T=25°C Pin 3 to 8	-	-	1	μA
Clamping voltage (tp=8/20s)	V_C	IPP = 1A, tp = 8/20μs Any I/O pin to ground	-	-	15	V
Clamping voltage (tp=8/20s)	V_C	IPP = 5A, tp = 8/20μs Any I/O pin to ground	-	-	20	V
Junction Capacitance	V_C	VR = 0V, f = 1MHz Between I/O pins	-	0.3	0.7	pF
Junction Capacitance	V_C	VR = 0V, f = 1MHz Any I/O pin to ground	-	0.7	0.9	pF

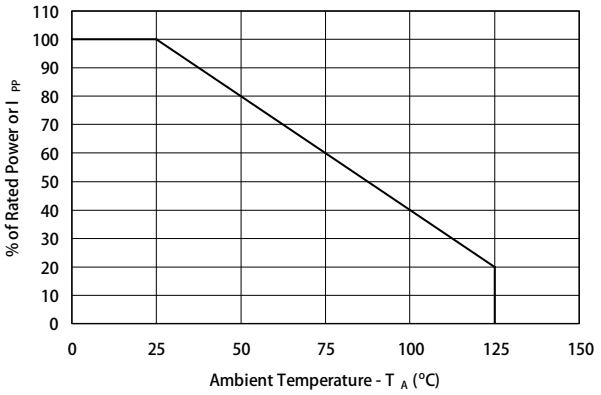
TVS/ESD Arrays - RLSO10A055LV Series

Typical Characteristics

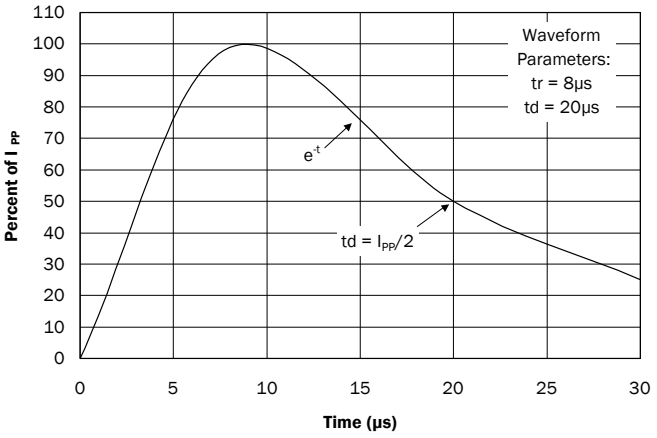
Non-Repetitive Peak Pulse Power vs. Pulse Time



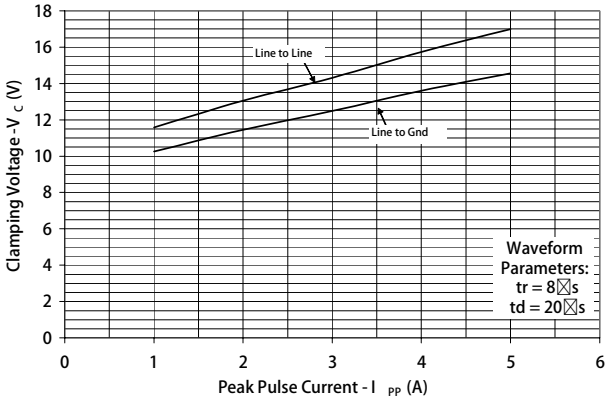
Power Derating Curve



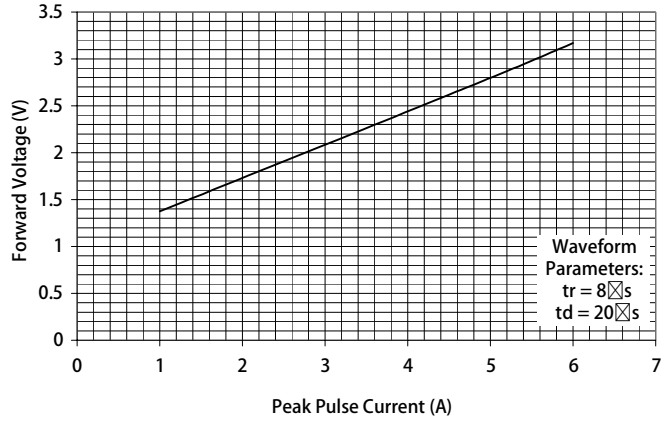
Pulse Waveform



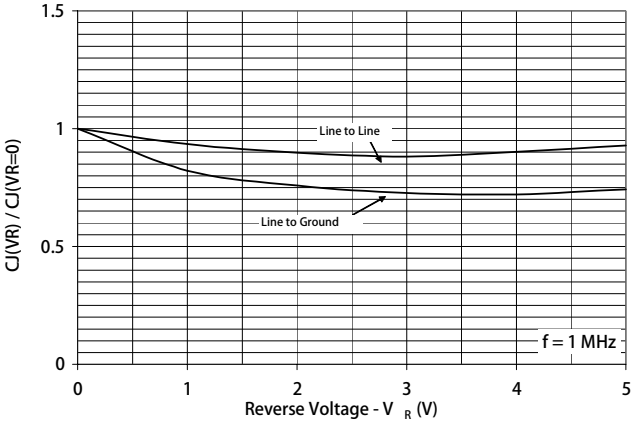
Clamping Voltage vs. Peak Pulse Current



Forward Voltage vs. Forward Current

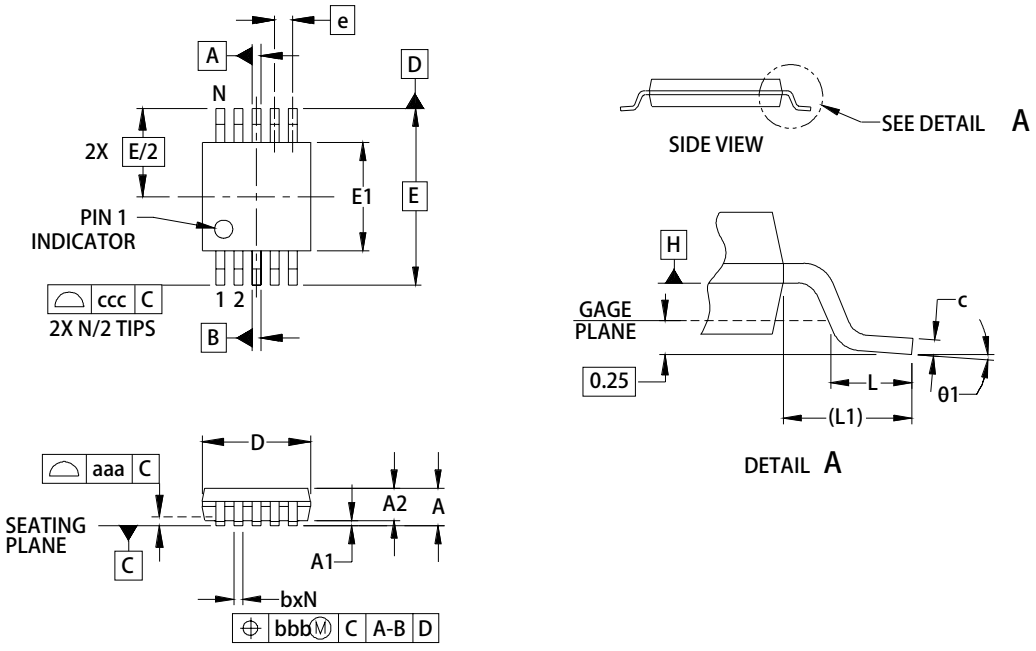


Normalized Capacitance vs. Reverse Voltage



TVS/ESD Arrays - RLSO10A055LV Series

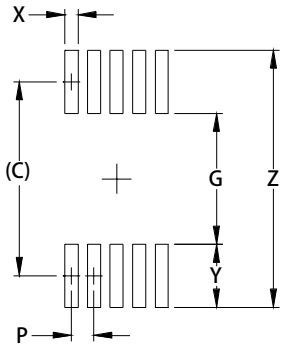
Package dimension MSOP-10



Dimensions						
DIM	Inches			Millimeters		
	Min	Nom	Max	Min	Nom	Max
A	-	-	.043	-	-	1.10
A1	.000	-	.006	0.00	-	0.15
A2	.030	-	.037	0.75	-	0.95
b	.007	-	.011	0.17	-	0.27
c	.003	-	.009	0.08	-	0.23
D	.114	.118	.122	2.90	3.00	3.10
E1	.114	.118	.122	2.90	3.00	3.10
E	.193BSC			4.90BSC		
e	.020BSC			0.50BSC		
L	.016	.024	0.32	0.40	0.60	0.80
L1	(.0.37)			(.95)		
N	10			10		
aaa	.004			0.10		
bbb	.003			0.08		
ccc	.010			0.25		

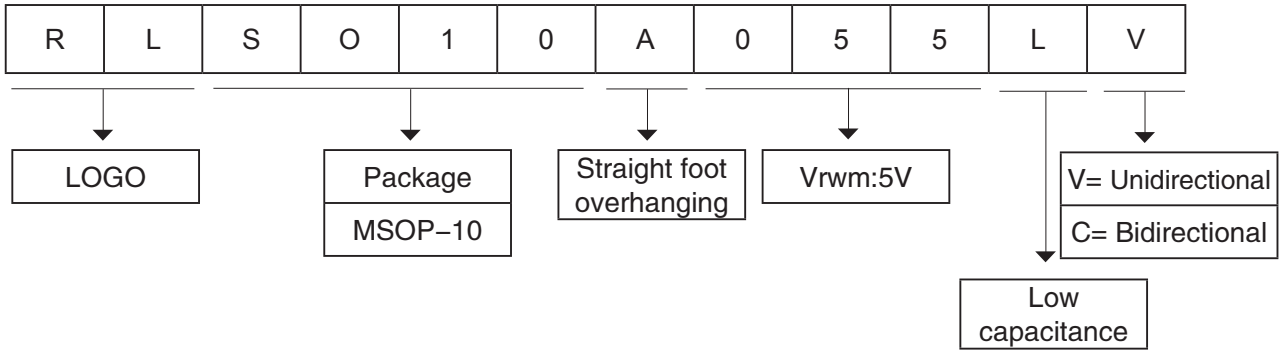
TVS/ESD Arrays - RLSO10A055LV Series

Soldering footprint



DIMENSIONS		
DIM	INCHES	MILLIMETERS
C	(.161)	(4.10)
G	.98	2.50
P	.020	0.50
X	.011	0.30
Y	.063	1.60
Z	.224	5.70

Part Number Code



Ordering Information

Part Number	Package	Min. Order Qty.
RLSO10A055LV	MSOP-10	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.

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