

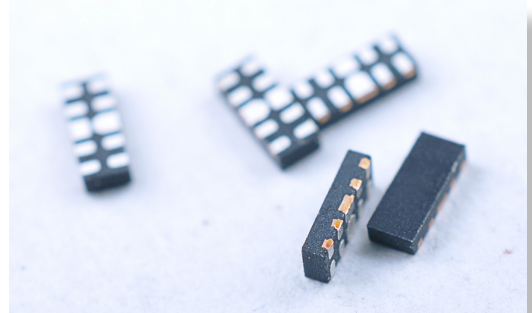
TVS/ESD Arrays

RLDSO10A054LV Series

TVS/ESD Arrays - RLDSON10A054LV Series

Features

- IEC61000-4-2 ESD 15KV Air,8KV contact compliance
- Protects four I/O lines
- Peak power dissipation of 150W under 8/20s waveform
- Working voltage : 5V
- Low leakage current
- Low operating and clamping voltages
- Solid-state silicon avalanche technology
- Lead Free/RoHS compliant



Mechanical Characteristics

- DSON-10(2.5×1.0×0.5mm) surface mount package
- Flammability rating UL 94V-0
- Marking: Logo, Marking Code, Date Code & Pin One
- Defined By Dot on Top of Package

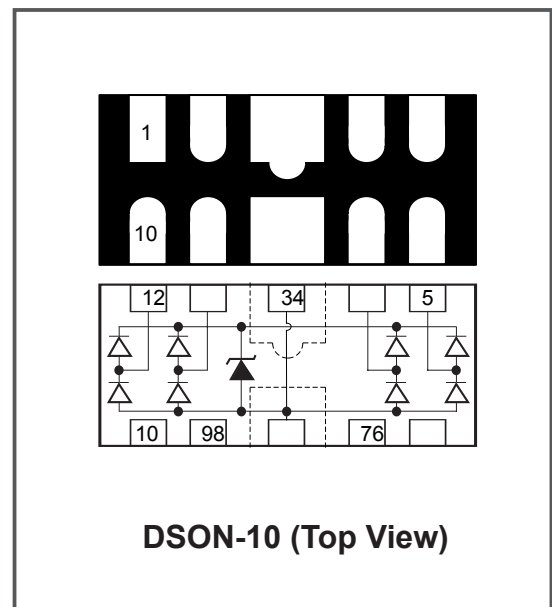
Applications

- High Definition Multimedia Interface (HDMI)
- Digital Visual Interface (DVI)
- Unified Display Interface (UDI)
- Display Port Interface
- MDDI Ports
- PCI Express
- Serial ATA

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 - RLDSON10A054LV Series

Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak pulse power (tp=8/20 s waveform)	P _{pp}	150	Watts
ESD voltage (HBM contact)	V _{ESD}	±8	A
ESD voltage (AIR contact)	V _{ESD}	±15	Kv
Lead soldering temperature	TL	260	°C
Storage & operating temperature range	TSTG ,TJ	-55~+150	°C

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

Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V _{RWM}	-	-	-	5	V
Reverse breakdown voltage	V _{BR}	IBR=1mA	6.0	-	-	V
Reverse leakage current	I _R	VR =5V each I/O pin	-	-	1	µA
Clamping voltage (tp=8/20s)	V _C	IPP=1A	-	-	15	V
Clamping voltage (tp=8/20s)	V _C	I _{IPP} =10A	-	-	20	V
Off state junction capacitance	V _C	0Vdc,f=1MHZ between I/O pins and GND	-	0.8	-	pF

TVS/ESD Arrays - RLDSON10A054LV Series

Typical Characteristics

Figure 1. Power Derating Curve

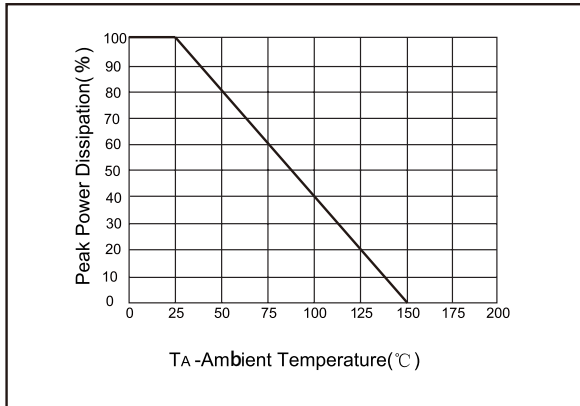


Figure 2. Pulse Waveforms

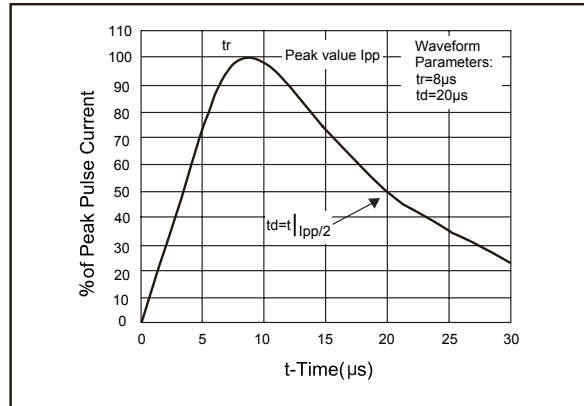


Figure 3. Non-Repetitive Peak Pulse vs Pulse Time

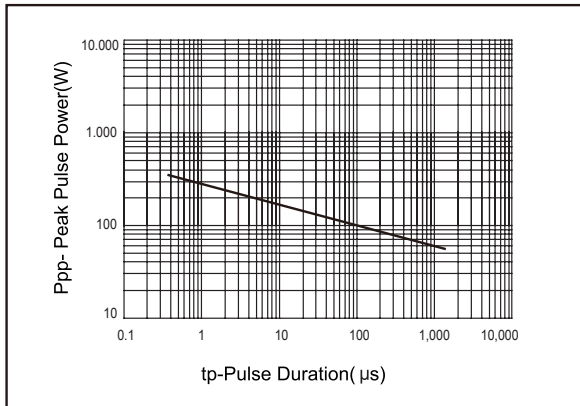
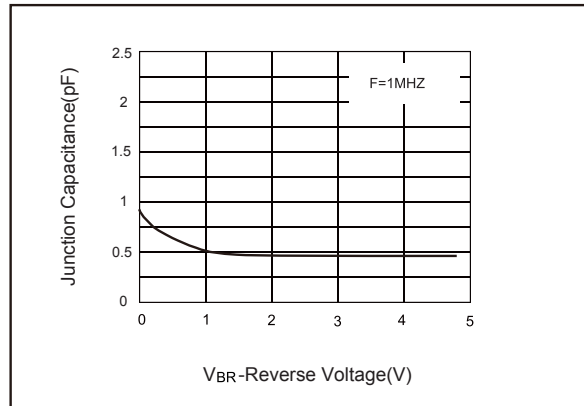
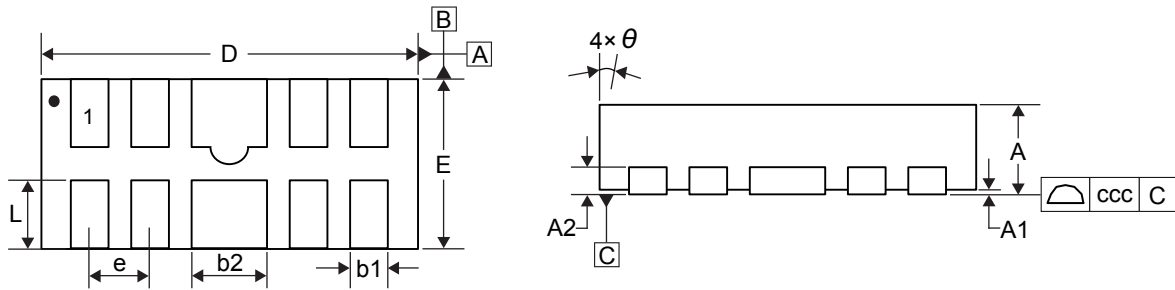


Figure 4. Capacitance vs. Reverse Voltage



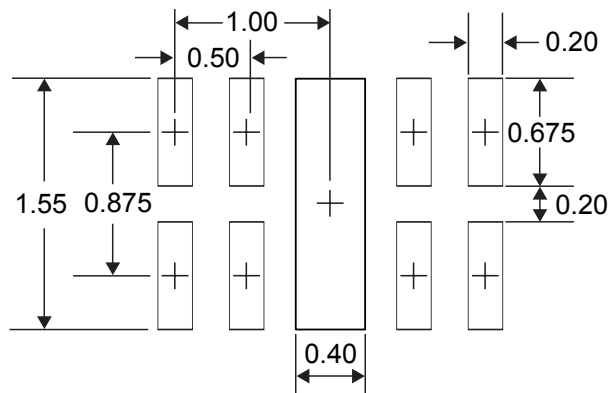
TVS/ESD Arrays - RLDSON10A054LV Series

Package dimension DSON-10



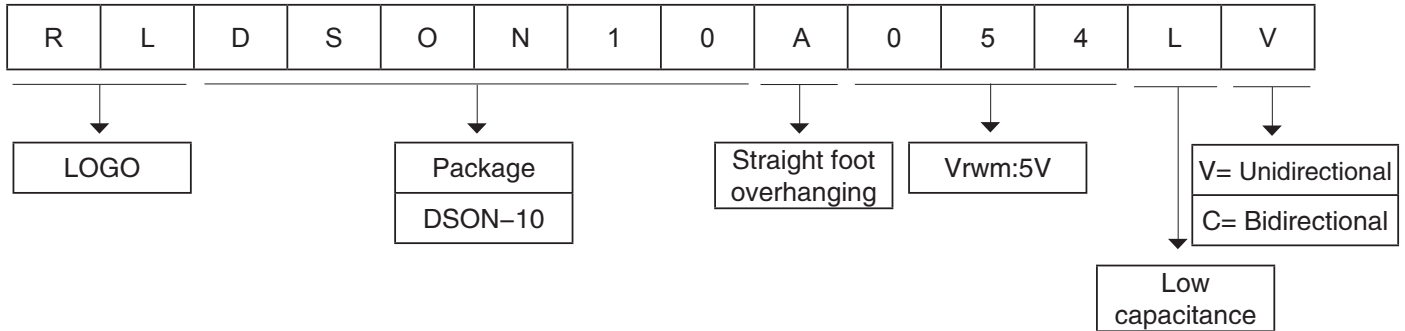
DIM	Dimensions					
	Inches			Millimeters		
	Min	Nom	Max	Min	Nom	Max
A	0.018	0.020	0.22	0.45	0.50	0.55
A1	0	0.0004	0.001	0	0.01	0.03
A2	-	0.006REF	-	-	0.15REF	-
b1	0.006	0.008	0.010	0.15	0.2	0.25
b2	0.014	0.016	0.018	0.35	0.40	0.45
D	0.096	0.098	0.100	2.45	2.50	2.53
E	0.037	0.039	0.041	0.95	1.00	1.03
e	-	0.020BSC	-	-	0.5BSC	-
L	-	-	0.002	-	-	0.05

Soldering footprint



TVS/ESD Arrays - RLDSON10A054LV Series

Part Number Code



Ordering Information

Part Number	Package	Min. Order Qty.
RLDSO10A054LV	DSO-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.

- 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.

Tel: +86-755-8290 8296

Fax: +86-755-8290 8002

E-mail: jack@ruilon.com