

Features

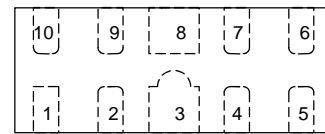
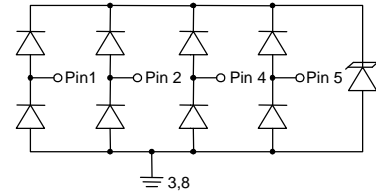
- I Solid-state silicon-avalanche technology
- I Low operating and clamping voltage
- I Up to four I/O Lines of Protection
- I Ultra low capacitance: 0.3pF typical(I/O to I/O)
- I Low Leakage
- I Low operating voltage:5V
- I Flow-Through design



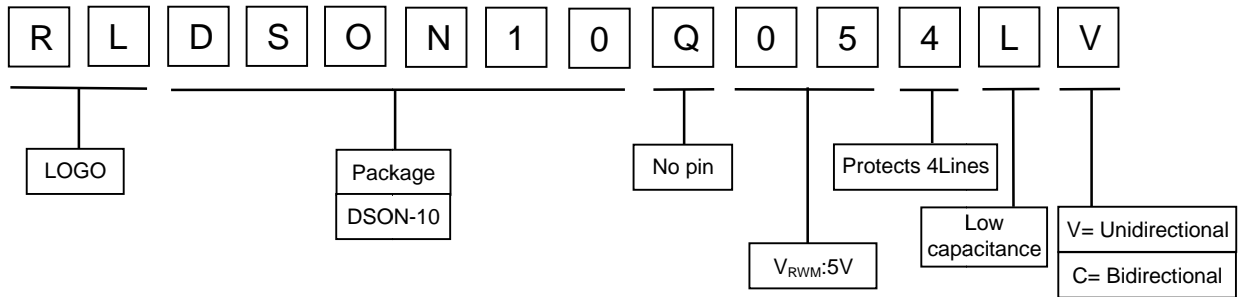
Applications

- I Digital Visual Interface(DVI)
- I MDDI Ports
- I Display Port TM Interface
- I PCI Express
- I High Definition Multi-Media Interface(HDMI)
- I eSATA Interfaces

Circuit Diagram & PIN Diagram



Part Number Code



Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power (tp =8/20µs)	P _{PP}	150	Watts
ESD Voltage (Contact)	V _{ESD}	12	kV
ESD Voltage (Air)	V _{ESD}	17	kV
Operating Temperature	T _J	-55 to 125	°C
Storage Temperature	T _{STG}	-55 to 150	°C

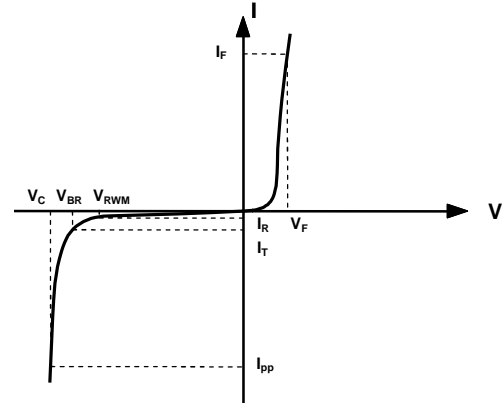
Electrical Characteristics (@ 25°C Unless Otherwise Specified)

Type Number	Reverse Stand-Off Voltage	Minimum Breakdown Voltage	Peak Pulse Voltage @8/20µS	Peak Pulse Current @8/20µS	Reverse Leakage @V _{RWM}	Typical Capacitance
	V _{RWM}	V _{BR} @1mA	V _C @1A	I _{PP}	I _R @V _{RWM}	DC=0V C _J @ 1 MHz
	V	V	V	A	µA	pF
RLDSO10Q054LV	5	6	15	5	1	0.3



Electrical Parameters (T=25°C)

Symbol	Parameter
I_{pp}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{pp}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I_F



Characteristic Curves

Fig 1. Peak Pulse Current vs Clamping Voltage

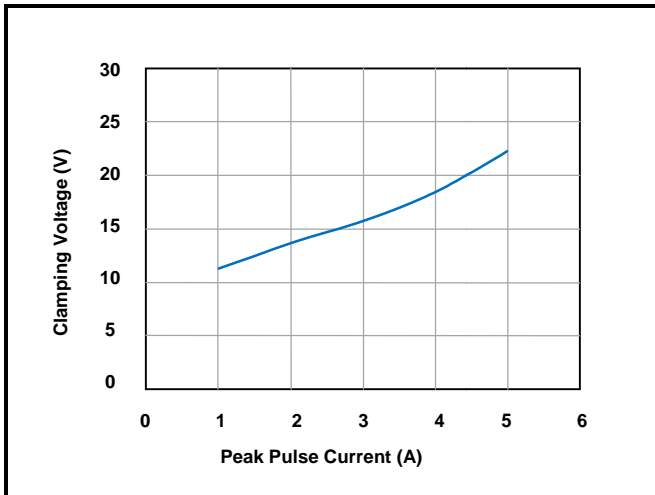


Fig2. Reverse Voltage vs Capacitance

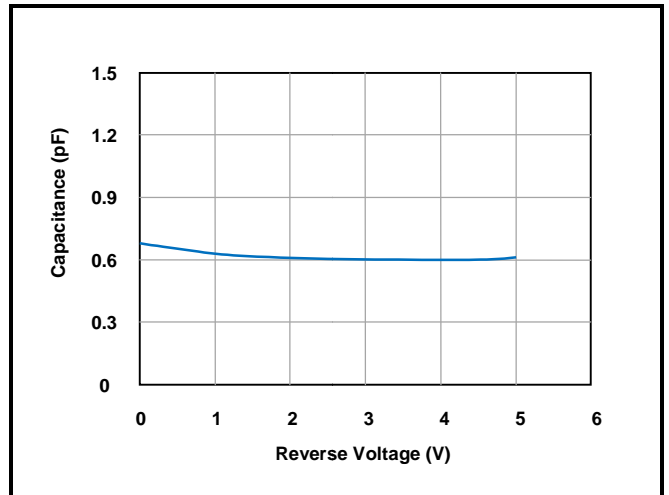


Fig 3. Power Derating Curve

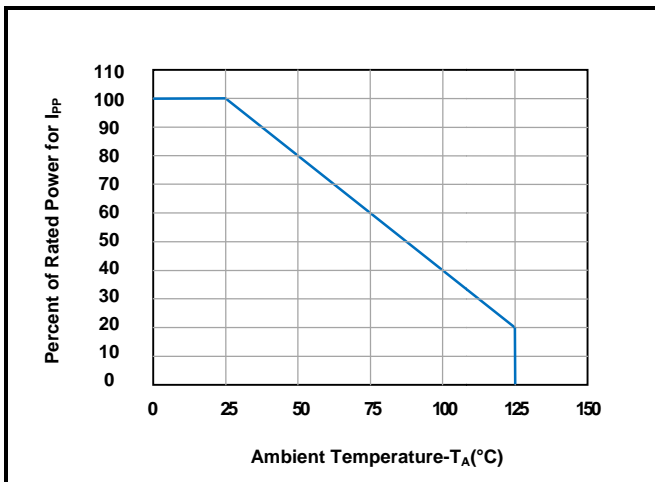
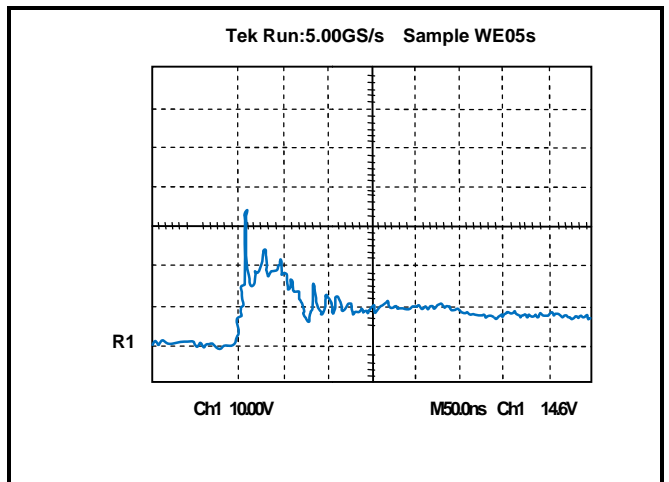
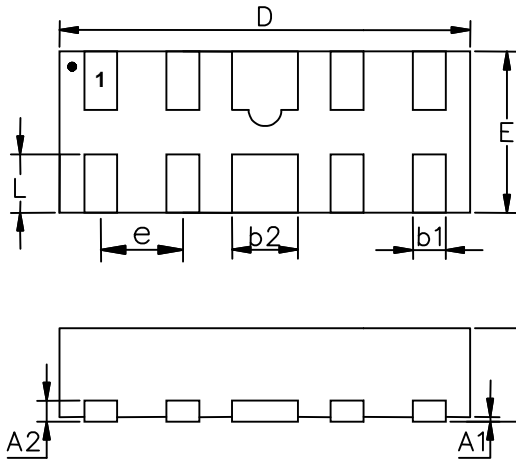


Figure 4.ESD Clamping(8KV Contact per IEC61000-4-2)



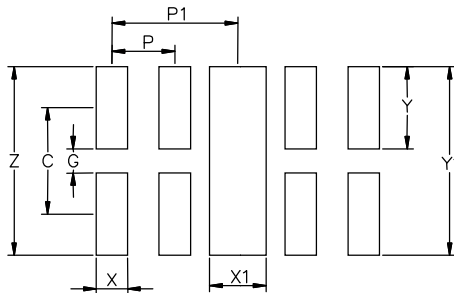
Dimensions



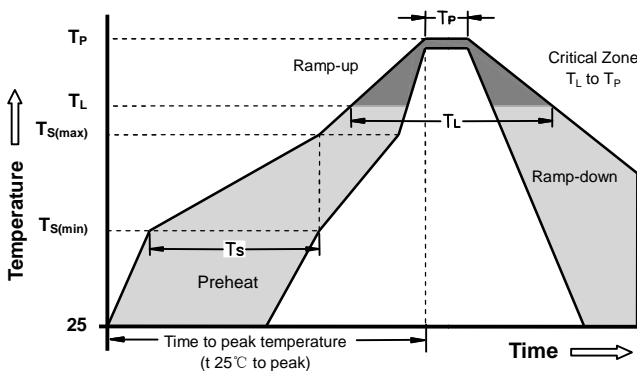
DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	0.50	0.65	0.02	0.026
A1	0.00	0.05	0.00	0.002
A2	0.13REF		0.005REF	
b1	0.15	0.25	0.006	0.010
b2	0.35	0.45	0.014	0.018
D	2.40	2.60	0.094	0.102
E	0.90	1.10	0.035	0.043
e	0.5BSC		0.02BSC	
L	0.30	0.425	0.012	0.017

Part Number	Packaging	Quantity	DFN-10L package	Molding compound flammability rating	Lead Finish
RLDSO10Q054LV	Tape and Reel	3000	2.5×1.0×0.58mm	UL 94V-0	Lead Free

Mounting PAD (mm)



Soldering Parameters - Reflow Soldering (Surface Mount Devices)



Reflow Condition		Pb - Free assembly
Pre Heat	- Temperature Min ($T_{s(min)}$)	150°C
	- Temperature Max ($T_{s(max)}$)	200°C
	- Time (min to max) (t_s)	60 - 180 Seconds
Average ramp up rate (Liquids Temp T_L to peak)		3°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	- Temperature (T_L) (Liquids)	217°C
	- Time (min to max) (t_s)	60 - 150 Seconds
Peak Temperature (T_P)		260 +0/-5°C
Time within 5°C of actual peak Temperature (t_p)		20 - 40 Seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_P)		8 minutes Max
Do not exceed		280°C

