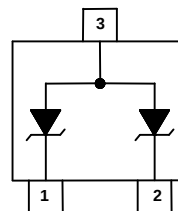


Features

- 125 Watts Peak Pulse Power per Line ($t_p = 8/20\mu s$)
- Low Capacitance ESD Protection
- SOT-523 Package
- RoHS Compliant
- Matte Tin Lead finish (Pb-Free)
- Protect Two High Speed Data Lines
- Meet IEC61000-4-2 Level 4: Contact Discharge > 8kV
Air Discharge > 15kV



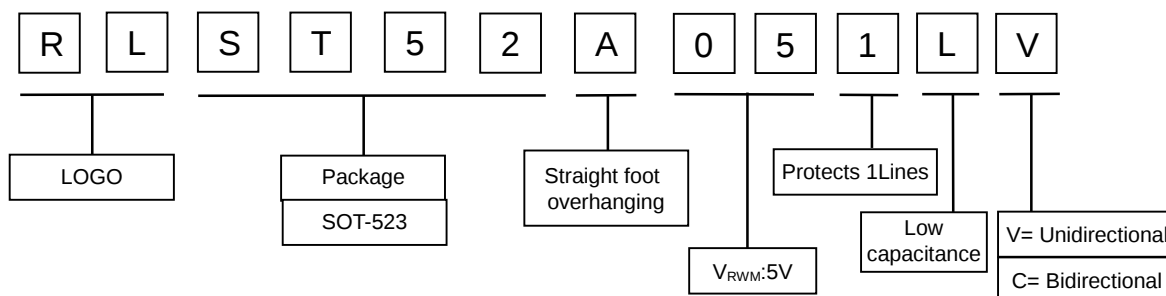
Electrical symbol



Applications

- USB 2.0 and Firewire Ports
- HBT Power Amplifier Protection
- GaAs Photodetector Protection
- Infiniband Transceiver Protection
- Mobile Display Digital Interface (MDDI)
- High Definition Multi-Media Interface (HDMI)

Part Number Code



Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PK}	125	W
ESD Voltage (Contact)	V_{ESD}	8	Kv
ESD Voltage (Air)	V_{ESD}	15	Kv
Junction Temperature	T_J	-55 to +125	°C
Storage Temperature	T_{STG}	-55 to +150	°C

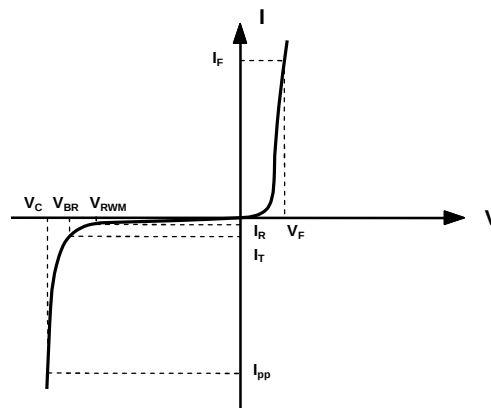
Electrical Characteristics (@ 25°C Unless Otherwise Specified)

Type Number	Reverse Stand-Off Voltage	Min 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
RLST52A051LV	5	6	15	5	1	1.2



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. 8/20μs Pulse Waveform

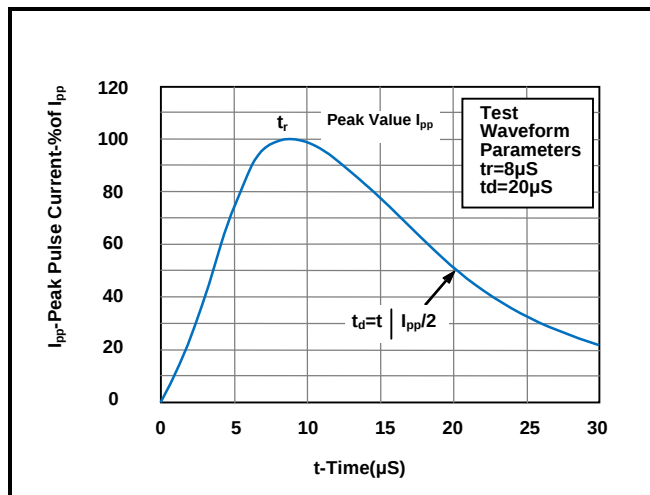


Fig 3. Peak Pulse Power Derating vs Temperature

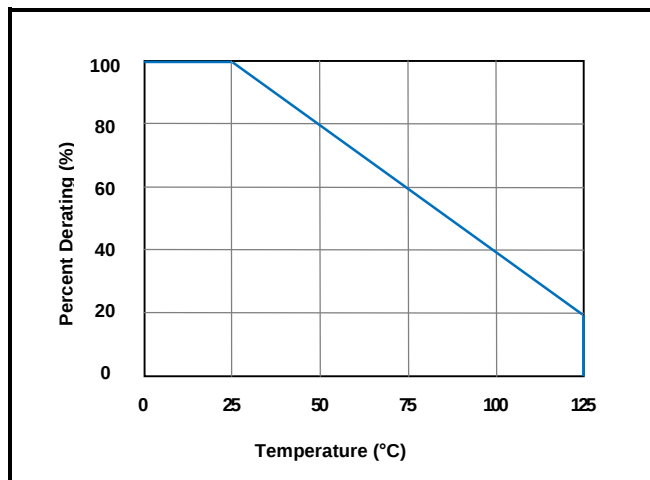


Fig2.ESD Pulse Waveform (according to IEC61000-4-2)

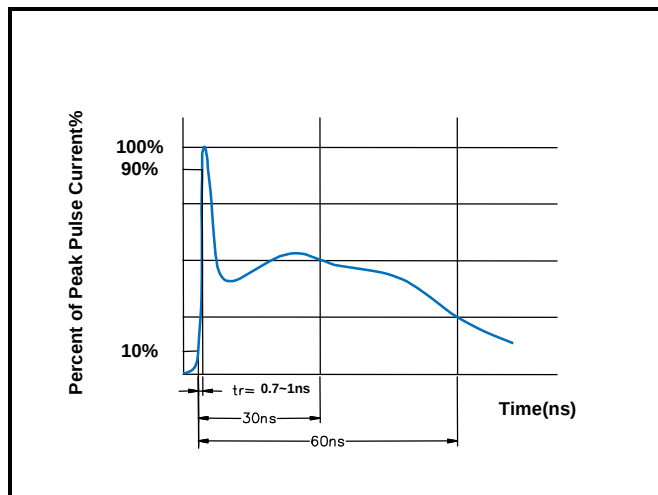
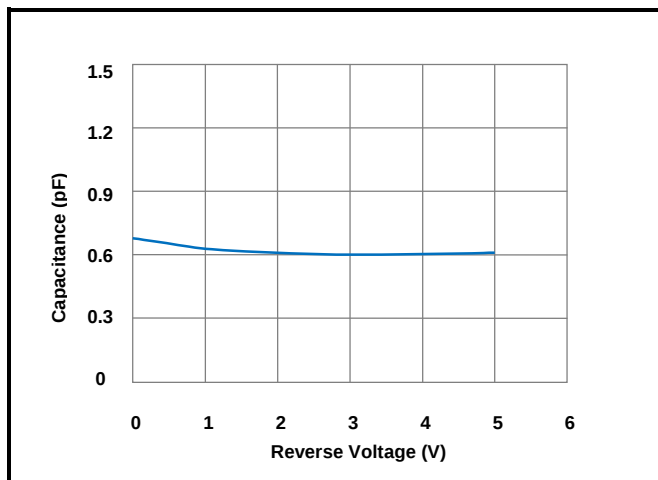
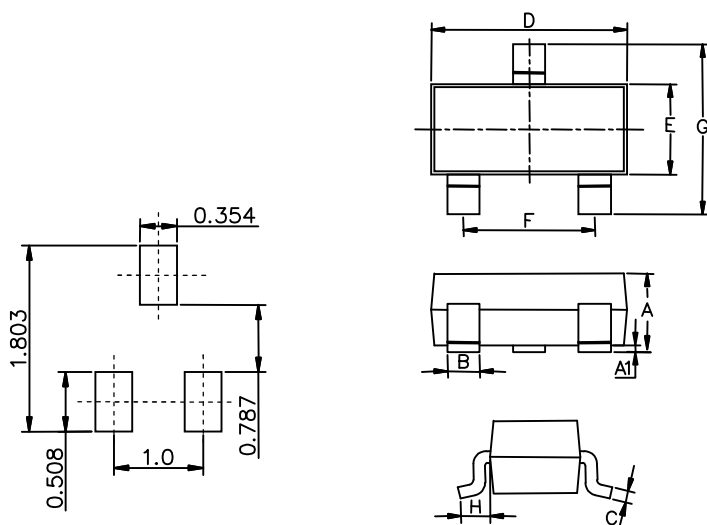


Figure 4. Reverse Voltage vs Capacitance



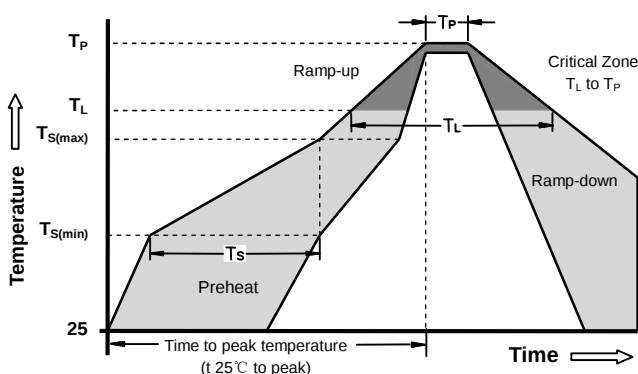
Dimensions(mm)



DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	0.70	0.90	0.028	0.035
A1	0	0.10	0	0.004
B	0.15	0.30	0.006	0.012
C	0.10	0.25	0.004	0.010
D	1.55	1.65	0.061	0.065
E	0.70	0.90	0.028	0.035
F	1.00BSC		0.039 BSC	
G	1.50	1.70	0.059	0.067
H	0.10	0.20	0.004	0.008

Part Number	Component package	Quantity	Reel Size	Molding compound flammability rating	Lead Finish
RLST52A051LV	SOT-523	3000	7 inch	UL 94V-0	Lead Free

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

