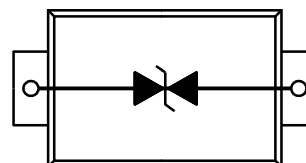


Features

- I 320 Watts Peak Pulse Power per Line ($t_p=8/20\mu s$)
- I Protects one I/O or power line
- I Working voltages : 3.3V, 5V, 8V, 12V, 15V, 24V, 36V
- I Low clamping voltage
- I Low leakage current
- I IEC61000-4-2 (ESD) $\pm 15kV$ (air), $\pm 8kV$ (contact)
- I IEC61000-4-4 (EFT) 40A (5/50ns)
- I IEC61000-4-5 (Lightning) 24A (8/20 μs)


SOD-323

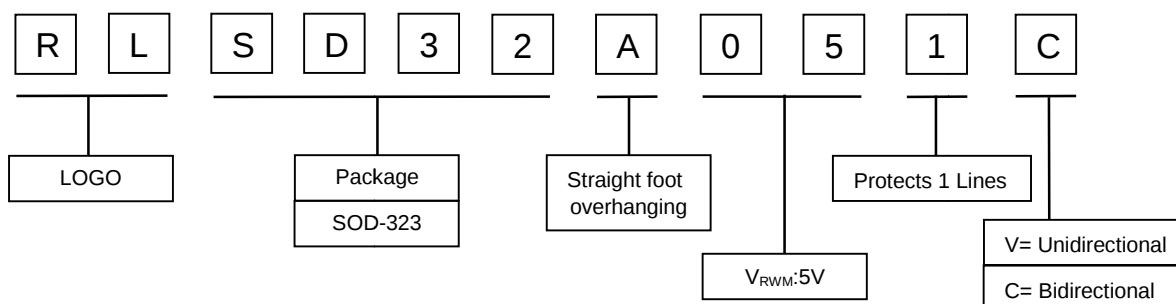
Electrical symbol



Applications

- I Cellular Handsets & Accessories
- I Personal Digital Assistants (PDAs)
- I Notebooks & Handhelds
- I Portable Instrumentation
- I Digital Cameras
- I MP3 Players

Part Number Code



Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu s$)	P _{PP}	320	Watts
ESD Voltage (Contact)	V _{ESD}	± 8	Kv
ESD Voltage (Air)	V _{ESD}	± 15	Kv
Operating Temperature Range	T _{op}	-55 to 150	°C
Storage Temperature Range	T _{STG}	-55 to 150	°C
IEC61000-4-4 (EFT)		40	A
Maximum lead temperature for soldering during 10s	T _L	260	°C

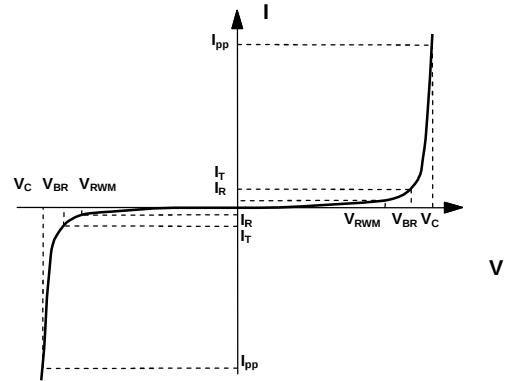


Electrical Characteristics (@ 25°C Unless Otherwise Specified)

Type Number	Reverse Stand-Off Voltage	Minimum Breakdown Voltage	Peak Pulse Voltage @8/20μS	V _C @8/20μS		Reverse Leakage @V _{RWM}	Typical Capacitance
	V _{RWM}	V _{BR} @1mA	V _C @1A	(max.)	@I _{PP}	I _R @V _{RWM}	DC=0V
	V	V	V	V	A	μA	C _J @ 1 MHz
RLSD32A031C	3.3	4.0	7.5	10	32	1	70
RLSD32A051C	5.0	6.0	8.0	12	30	1	65
RLSD32A081C	8.0	8.5	12.0	20	18	1	55
RLSD32A121C	12.0	13.3	19.0	24	15	1	40
RLSD32A151C	15.0	16.7	24.0	29	12	1	30
RLSD32A241C	24.0	26.7	40.0	60	6	1	25
RLSD32A361C	36.0	40.0	50.0	75	4	1	20

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



Characteristic Curves

Fig 1. 8/20μs Pulse Waveform

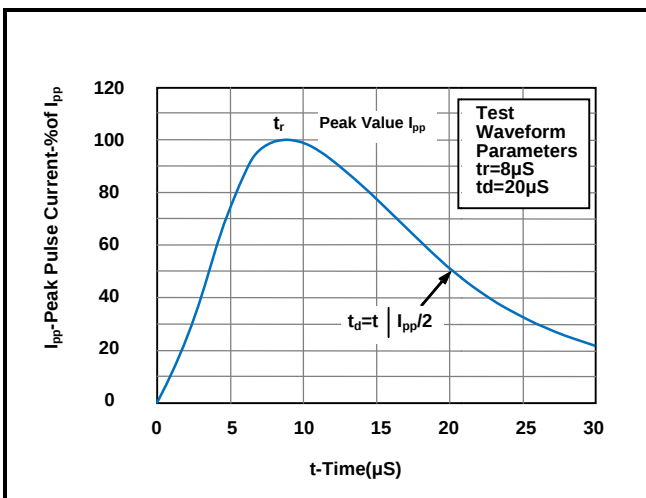


Fig2.ESD Pulse Waveform (according to IEC61000-4-2)

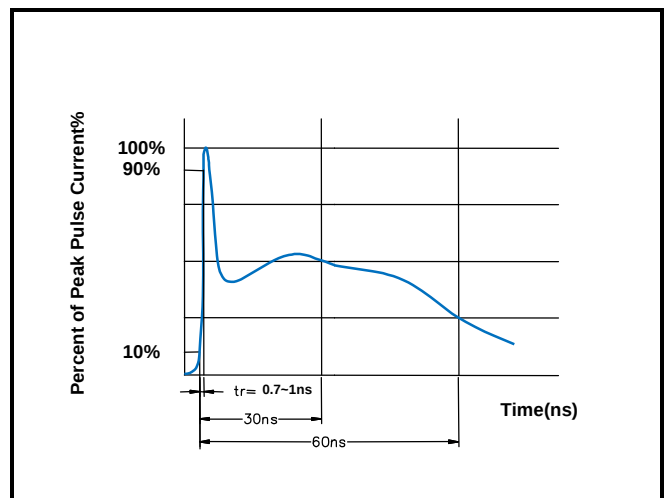


Fig 3. Power Derating Curve

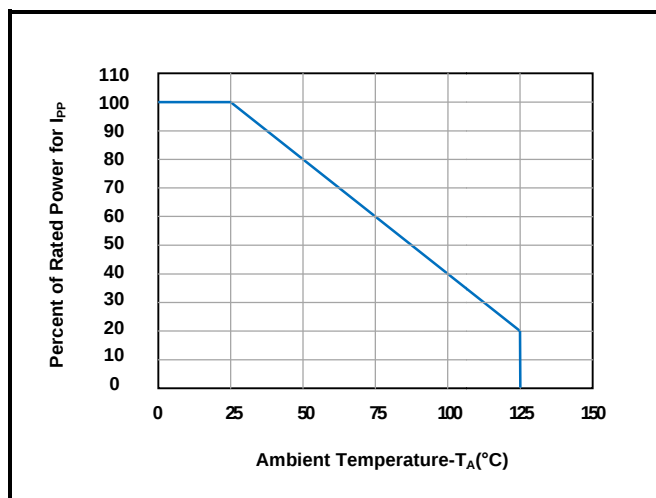
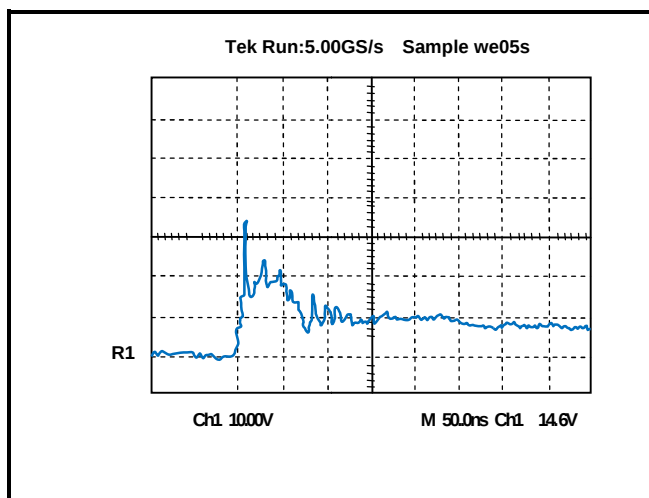
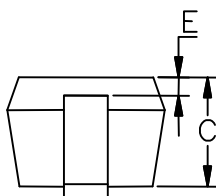
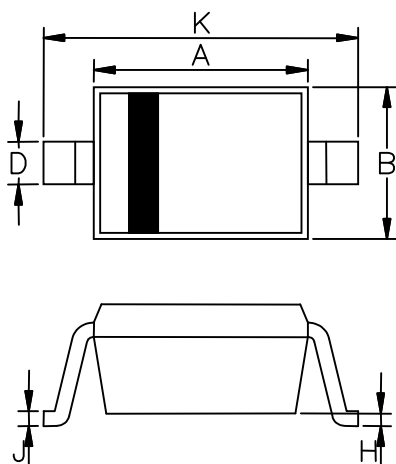


Figure 4.ESD Clamping(8KV Contact per IEC61000-4-2)



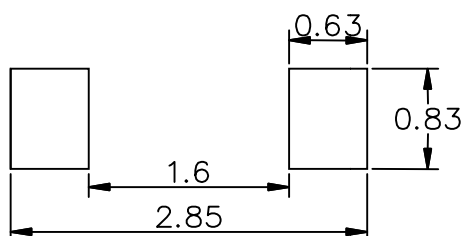
Dimensions



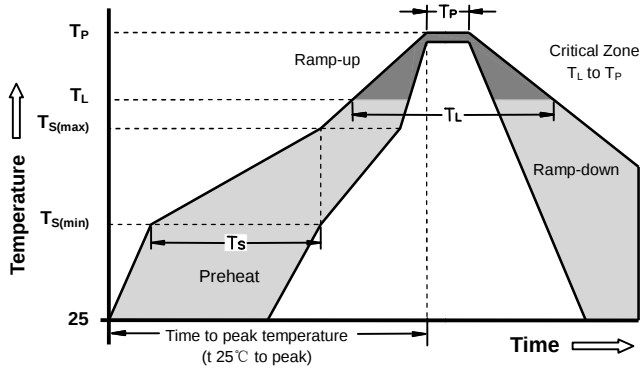
DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	1.60	1.80	0.063	0.071
B	1.15	1.35	0.045	0.053
C	0.80	1.00	0.031	0.039
D	0.25	0.40	0.010	0.016
E	0.15 REF		0.006 REF	
H	0.00	0.10	0.000	0.004
J	0.09	0.18	0.004	0.007
K	2.30	2.70	0.091	0.106

Part Number	Packaging	Quantity	Component package	Molding compound flammability rating	Lead Finish
RLSD32AXX1C	Tape and Reel	3000	SOD-323	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