

Features

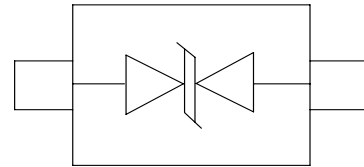
- 160W peak pulse power (8/20 μ s)
- Low Channel input capacitance
- Ultra low leakage: nA level
- Low clamping voltage
- Protects one data line of the LIN
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: ± 30 kV
 - Contact discharge: ± 30 kV
- RoHS Compliant



SOD-323

Mechanical Characteristics

- Package: SOD-323
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound.
- Terminal Connections: See Diagram Below
- Marking Information: See Below



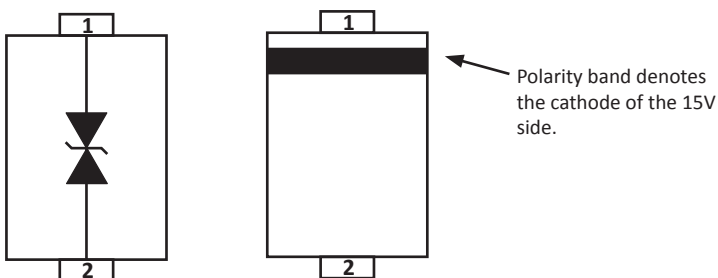
Circuit diagram



24= Device code
Marking (Top View)

Applications

- LIN Bus Protection



Ordering Information

Part Number	Packaging	Reel Size
ESDLIN1524BJ	3000/Tape & Reel	7 inch

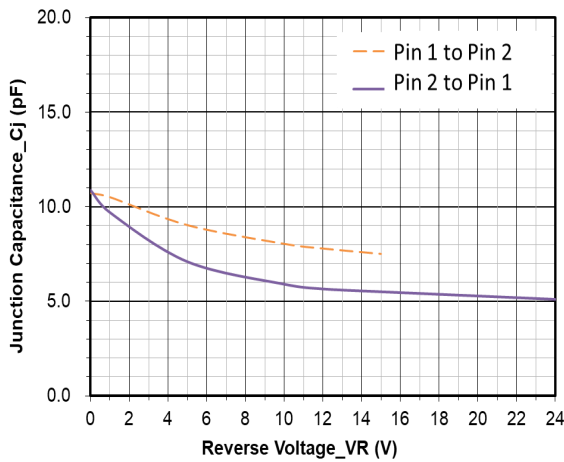
Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	P _{pk}	160	W
Peak Pulse Current (t _p = 8/20μs), Pin 1 to Pin 2	I _{pp}	5	A
Peak Pulse Current (t _p = 8/20μs), Pin 2 to Pin 1		3	
ESD per IEC 61000-4-2 (Air)	V _{ESD}	±30	kV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	T _J	-40 to +85	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

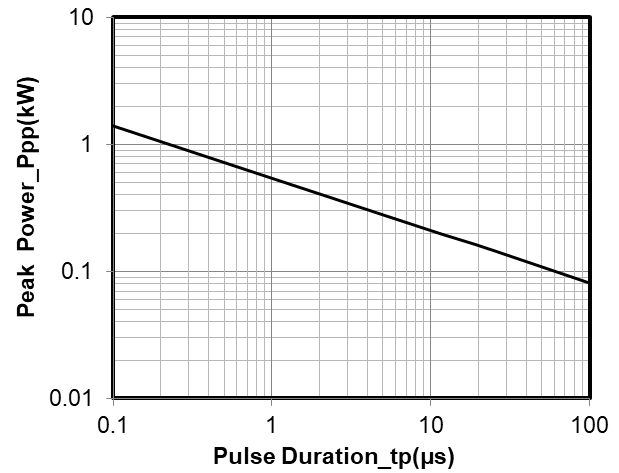
Electrical Characteristics (T_A=25°C unless otherwise specified)

		Pin 1 to 2 (15V TVS)			Pin 2 to 1 (24V TVS)				
Parameter	Symbol	Min	Typ	Max	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V _{RWM}			15			24	V	
Breakdown Voltage	V _{BR}	17.1			25.4			V	I _T = 1mA
Reverse Leakage Current	I _R			50			50	nA	V _R = V _{RWM}
Clamping Voltage	V _C			25			35	V	I _{PP} = 1A (8 x 20μs pulse)
Clamping Voltage	V _C						50	V	I _{PP} = 3A (8 x 20μs pulse)
Clamping Voltage	V _C			35				V	I _{PP} = 5A (8 x 20μs pulse)
Junction Capacitance	C _J			13			13	pF	V _R = 0V, f = 1MHz
Junction Capacitance	C _J			10			8	pF	V _R = V _{RWM} , f = 1MHz

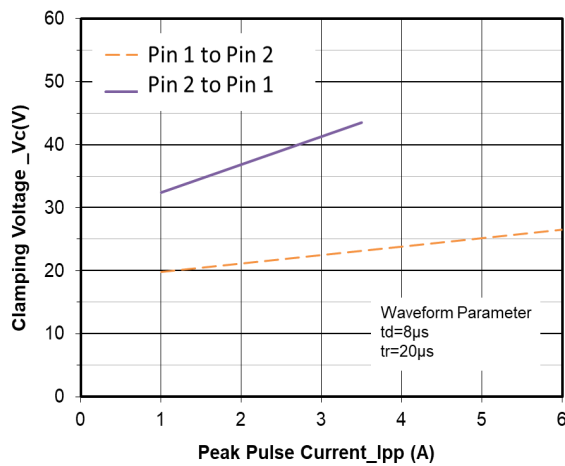
Typical Performance Characteristics (TA=25°C unless otherwise Specified)



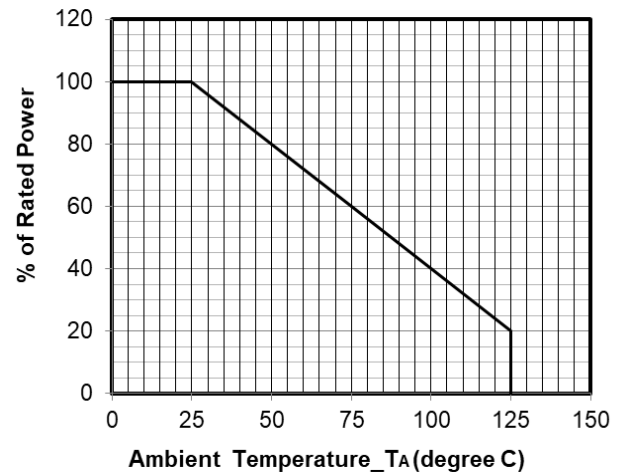
Junction Capacitance vs. Reverse Voltage



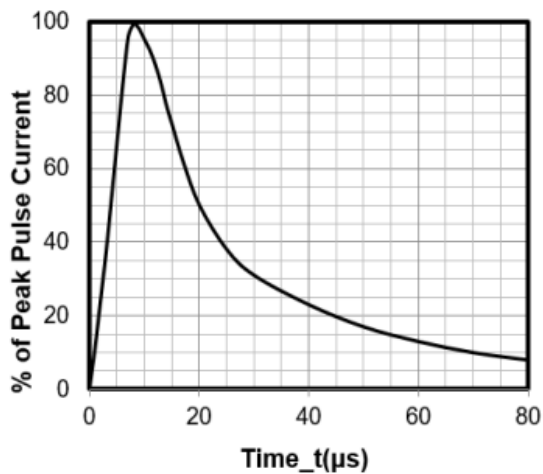
Peak Pulse Power vs. Pulse Time



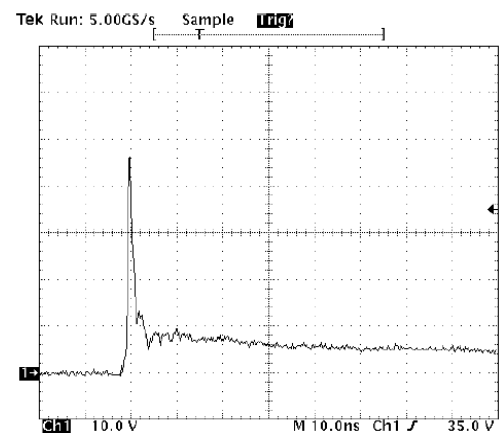
Clamping Voltage vs. Peak Pulse Current



Power Derating Curve



8 X 20 μ s Pulse Waveform

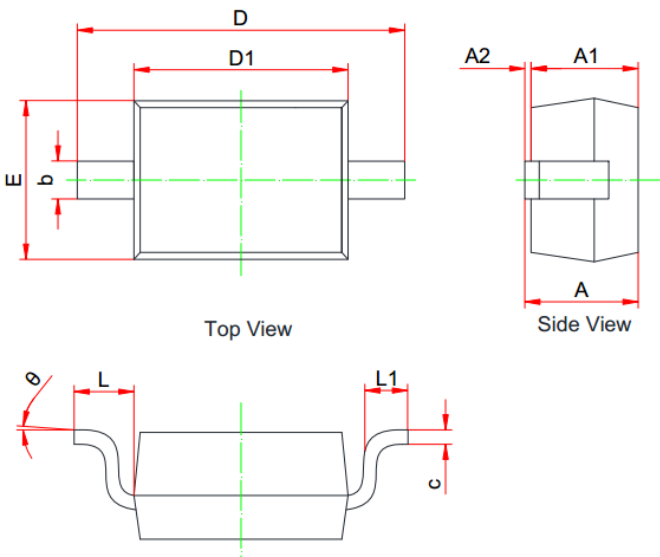


Note: Data is taken with a 10x attenuator

ESD Clamping Voltage

8 kV Contact per IEC61000-4-2

SOD-323 Package Outline Drawing



	MILLIMETERS		
	MIN	NOM	MAX
A	0.800	--	1.100
A1	0.800	--	0.900
A2	0.000	--	0.100
b	0.250	--	0.400
c	0.080	--	0.177
D1	1.600	1.700	1.800
D	2.300	--	2.800
E	1.150	--	1.400
L	0.475REF		
L1	0.100	--	0.500
Θ	0°	--	8°

Suggested Land Pattern



Unit: mm