

Tripolar Overvoltage Protection for Network Interfaces

LT3010

Description

The LT3021 is a low capacitance transient surge arrestor designed for protection of high debit rate communication network.

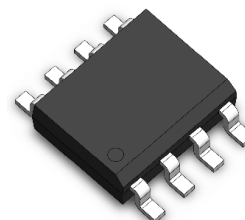
Features

- ◆ Tripolar crowbar protection
- ◆ Low capacitance
- ◆ Repetitive peak pulse current: $I_{PP}=30A$ (10/1000 μ s)
- ◆ Low holding current: $I_H=30mA$

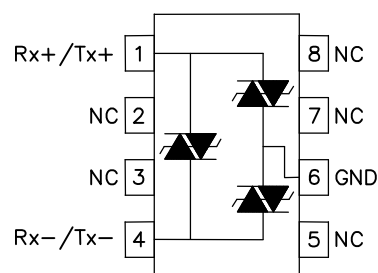
Applications

Dedicated to data line protection, this device provides a tripolar protection function. It ensure the same protection capability with the same breakdown voltage in both common and differential modes.

SO-08



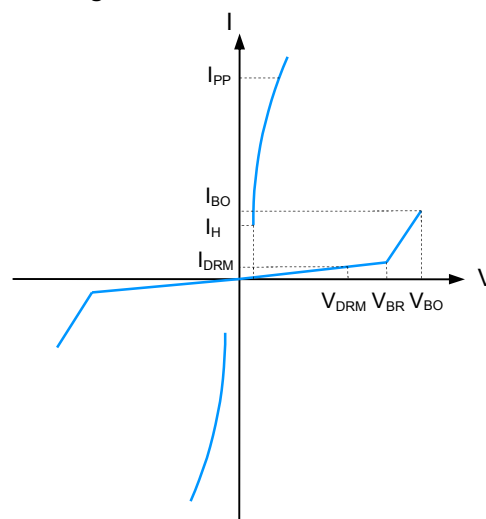
Functional Diagram



Electrical Parameters

Symbol	Parameter
V_{DRM}	Stand-off Voltage
I_{DRM}	Leakage Current V_{DRM}
V_{BR}	Continuous Reverse Voltage
V_{Bo}	Breakover Voltage
I_H	Holding Current
I_{Bo}	Breakover Current
I_{PP}	Peak Pulse Current
C	Capacitance

Fig1. LT3010 Characteristic Curve



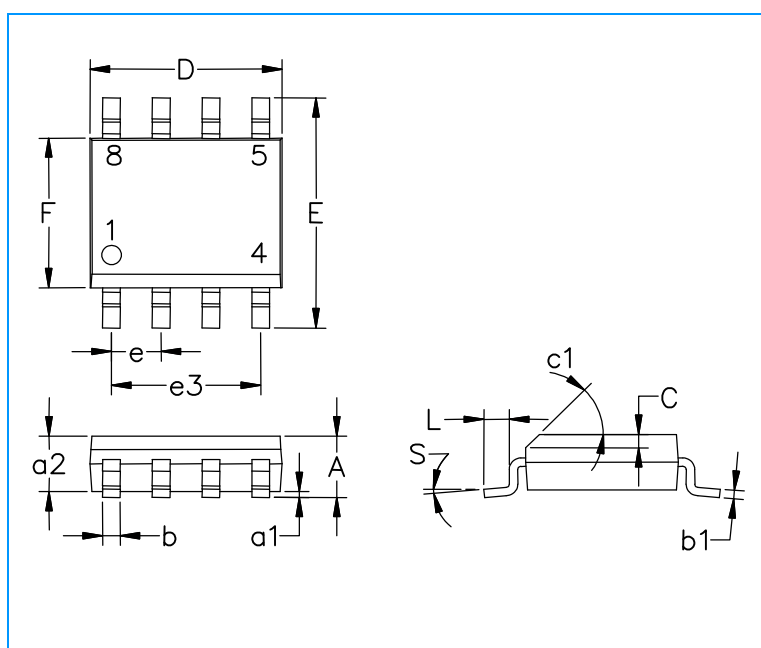
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Electrical Characteristics (Tamb=25°C)

V _{DRM}	I _{DRM}	V _{BO}	I _{BO}	V _T	I _T	I _H	C ₀	I _{PP} (10/1000μs)
Max.		Max.	Max.	Max.	Max.	Min.	Max.	
V	μA	V	mA	V	A	mA	pF	A
6	10	15	300	5	1	30	50	30

SO-8 Package Outline & Dimensions



DIM	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	-	-	1.75	-	-	0.069
a1	0.1	-	0.25	0.004	-	0.010
a2	-	-	1.65	-	-	0.065
b	0.35	-	0.48	0.014	-	0.019
b1	0.19	-	0.25	0.007	-	0.010
C	-	0.50	-	-	0.020	-
c1	45° (Typ)					
D	4.8	-	5.0	0.189	-	0.197
E	5.8	-	6.2	0.228	-	0.244
e	-	1.27	-	-	0.050	-
e3	-	3.81	-	-	0.150	-
F	3.8	-	4.0	0.15	-	0.157
L	0.4	-	1.27	0.016	-	0.050
M	-	-	0.6	-	-	0.024
S	8° Max.					

Soldering Footprint

