

## Tripolar Overvoltage Protection for Network Interfaces

### LT3021

#### Description

The LT3021 is a low capacitance transient surge arrestor designed for protection of high debit rate communication network. Its low capacitance avoids distortion of the signal as it has been designed for T1/E1 and Ethernet networks.

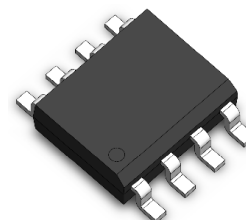
#### Features

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

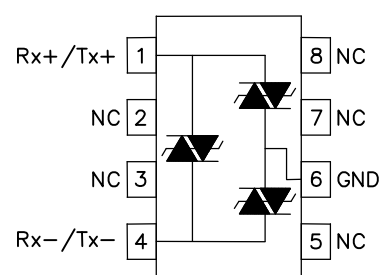
#### Applications

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-8



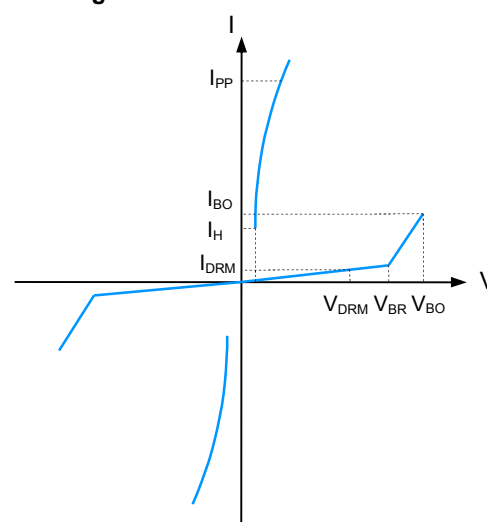
#### Functional Diagram



#### 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
<b>C</b>	Capacitance

Fig1. LT3021 Characteristic Curve



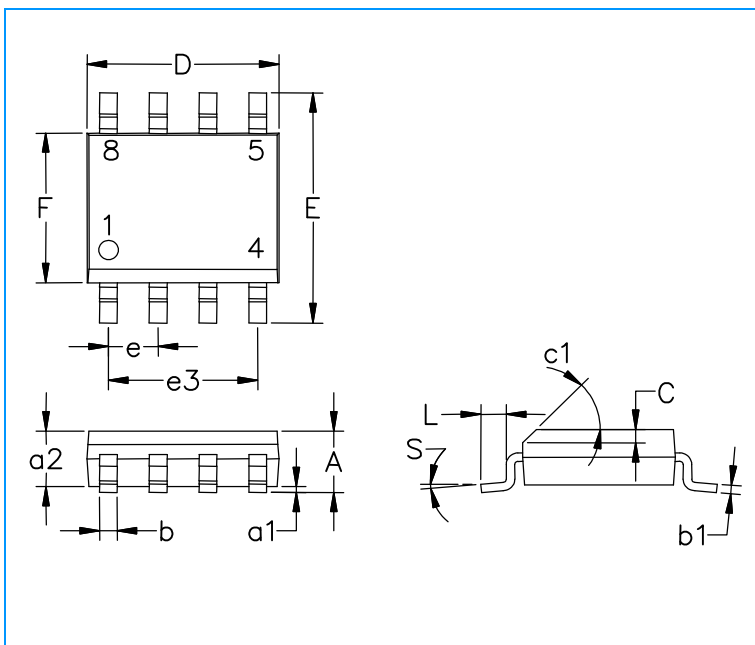
## Tripolar Overvoltage Protection for Network Interfaces

### LT3021

#### Electrical Characteristics (Tamb=25°C)

V <sub>DRM</sub>	I <sub>DRM</sub>	V <sub>BO</sub>	I <sub>BO</sub>	V <sub>T</sub>	I <sub>T</sub>	I <sub>H</sub>	C <sub>0</sub>	I <sub>PP</sub> (10/1000μs)
Max.		Max.	Max.	Max.	Max.	Min.	Max.	
V	μA	V	mA	V	A	mA	pF	A
28	10	38	300	5	1	30	25	30

#### SO-08 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

