S8ULC03-2-G thru S8ULC24-2-G

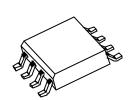
TECHNICAL DATA DATA SHEET 4611, REV. -

**Green Products** 

**TVS ARRAY SERIES** 

## **FEATURES**

- ✓ Protects 3.3, 5, 12, 15, 24 V Components
- ✓ Unidirectional
- ✓ Ultra low Capacitance 3 pF
- ✓ Provides Electrically Isolated Protection
- √ 500 W @ 8/20 μs
- ✓ Protects 2 Lines
- √ SO-8 Packaging
- ✓ Green Products in Compliance with the RoHS Directive

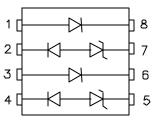


## DESCRIPTION

The S8ULCXX-2-G series of TVS array have been designed to provide unidirectional protection for sensitive electronics from damage due to voltage transients caused by electrostatic discharge (ESD), electrical fast transients (EFT), lightning and other voltage-induced transient events. The device can be used to protect up to 2 unidirectional lines.

### **SCHEMATIC & PIN CONFIGURATION**

SO-8



## **APPLICATION**

- ✓ 10/100 Base T Ethernet
- ✓ USB
- ✓ Cellular Phone Terminals
- ✓ Audio/Video Inputs
- ✓ XDSL Interfaces

## **MECHANICAL CHARACTERISTICS**

- ✓ SO-8 Surface Mount Package
- ✓ Approximate Weight: 0.1 grams
- ✓ Marking: Device number, Date code, & Logo
- ✓ PIN #1 Indicator: DOT on top of package
- ✓ Packaging: Tubes or Tape & Reel per EIA Standard 481

# **ABSOLUTE MAXIMUM RATINGS**

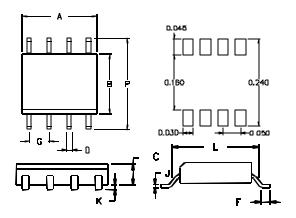
Symbol	Parameter	Value	Unit
Р	Peak Pulse Power, 8/20 μs Waveshape	500	W
$T_J$	Operating Temperature	-55 to +125	°C
$T_{STG}$	Storage Temperature	-55 to +150	°C
$T_L$	Lead Soldering Temperature	260 (10 Sec.)	°C

TECHNICAL DATA DATA SHEET 4611, REV. -

# **Green Products**

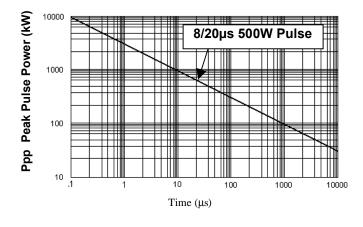
ELECTRICAL CHARACTERISTICS @ 25 °C									
Part Number	Stand-off	Breakdown	Clamping	Leakage	Capacitance	Temperature			
	Voltage	Voltage	Voltage	Current	(f = 1MHz)	Coefficient			
		$V_{BR}$	V <sub>c</sub>	I <sub>R</sub>	С	of $V_{BR}$			
	$V_{wm}$	@1mA	@ 1 A	@ V <sub>wm</sub>	@ 0V	a(V <sub>BR</sub> )			
	(v)	(V)	(V)	(μA)	(pF)	mv/°C			
	Max	Min	Max	Max	Max	Max			
S8ULC03-2-G	3.3	4	8	200	3	-5			
S8ULC05-2-G	5.0	6	10.8	20	3	1			
S8ULC12-2-G	12.0	13.3	19	1	3	8			
S8ULC15-2-G	15.0	16.7	25	1	3	11			
S8ULC24-2-G	24.0	26.7	44	1	3	28			

### **PACKAGE OUTLINES & DEMENSIONS**



	INC	HES	MILLIMETERS		
DIM	MIN.	MAX	MIN.	MAX.	
A	0.189	0.196	4.8	5.0	
В	0.150	0.157	3.8	4.0	
C	0.053	0.069	1.35	1.75	
D	0.011	0.021	0.28	0.53	
F	0.016	0.050	0.41	1.27	
G	0.050 BSC		1.27 BSC		
J	0.006	0.010	0.15	0.25	
K	0.004	0.008	0.10	0.20	
L	0.189	0.206	4.80	5.23	
P	0.228	0.244	5.79	6.19	

## **TYPICAL CHARACTERISTICS**



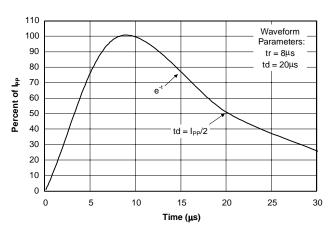


Figure 1. Peak Pulse Power Vs Pulse Time (ns)

Figure 2. Pulse Wave Form



S8ULC03-2-G thru S8ULC24-2-G

TECHNICAL DATA DATA SHEET 4611, REV. -

**Green Products** 

#### DISCLAIMER:

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior not ice to improve product characteristics. Before ordering, purchasers are advised to contact the Sensitron Semiconductor sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall Sensitron Semiconductor be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). Sensitron Semiconductor assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
- 4- In no event shall Sensitron Semiconductor be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
- 5- No license is granted by the datasheet(s) under any patents or other rights of any third party or Sensitron Semiconductor.
- 6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed writ ten permission of Sensitron Semiconductor.
- 7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations.