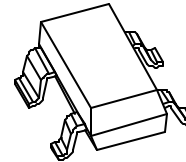
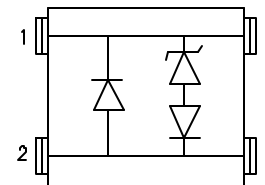


TECHNICAL DATA
DATA SHEET 1920, REV. -**TVS ARRAY SERIES****FEATURES**

- ✓ Protects 3.3, 5, 12, 15, 24 V Components
- ✓ Unidirectional
- ✓ Low Capacitance 5 pF
- ✓ Low Leakage
- ✓ Provides Electrically Isolated Protection
- ✓ 300 W @ 8/20 μ s
- ✓ Protects 1 line
- ✓ SOT-143 Packaging

SOT-143**DESCRIPTION**

The S4304XX 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), secondary lightning and other voltage-induced transient events. The device can be used to protect 1 unidirectional data line or interface line.

SCHEMATIC & PIN CONFIGURATION**APPLICATION**

- ✓ WAN/LAN Equipment
- ✓ Cellular phone
- ✓ Notebooks, Desktops, & Servers
- ✓ Audio/Video Inputs
- ✓ Handheld Electronics
- ✓ FireWire, SCSI & **USB** interfaces

MECHANICAL CHARACTERISTICS

- ✓ SOT-143 Surface Mount Package
- ✓ Approximate Weight: 0.03 grams
- ✓ Marking: Device Marking Code
- ✓ PIN #1 Indicator: DOT on top of package
- ✓ Packaging: Tape and Reel Per EIA 481

ABSOLUTE MAXIMUM RATINGS

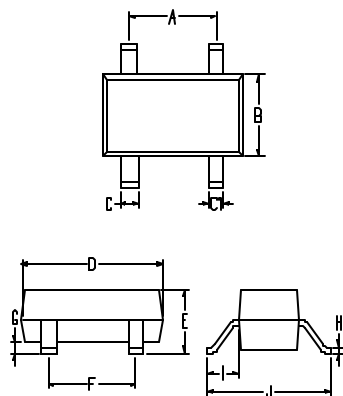
Symbol	Parameter	Value	Unit
P	Peak Pulse Power, 8/20 μ s Waveshape	300	W
T _J	Operating Temperature	-55 to +125	°C
T _{STG}	Storage Temperature	-55 to +150	°C
T _L	Lead Soldering Temperature	260 (10 Sec.)	°C

TECHNICAL DATA
DATA SHEET 1920, REV. -

ELECTRICAL CHARACTERISTICS @ 25 °C

Part Number	Stand-off Voltage V_{wm} (v) Max	Breakdown Voltage V_{BR} @ 1mA (V) Min	Clamping Voltage V_c @ 1 A (V) Max	Leakage Current I_R @ V_{wm} (μ A) Max	Capacitance (f = 1MHz) C @ 0V (pF) Max	Temperature Coefficient of V_{BR} a(V_{BR}) mv/°C Max
S430403	3.3	4	8	200	5	-5
S430405	5.0	6	10.8	20	5	1
S430412	12.0	13.3	19	1	5	8
S430415	15.0	16.7	24	1	5	11
S430424	24.0	26.7	43	1	5	28

PACKAGE OUTLINES & DEMENSIONS



DIM	INCHES		MILLIMETERS	
	MIN.	MAX	MIN.	MAX.
A	0.070	0.080	1.778	2.032
B	0.047	0.055	1.194	1.397
C	0.030	0.037	0.762	0.940
C1	0.015	0.020	0.381	0.508
D	0.110	0.119	2.794	3.023
E	0.035	0.044	0.889	1.118
F	0.071	0.079	1.803	2.007
G	0.0006	0.006	0.015	0.152
H	0.003	0.007	0.076	0.178
I	0.018	0.023	0.457	0.584
J	0.083	0.093	2.108	2.362

TYPICAL CHARACTERISTICS

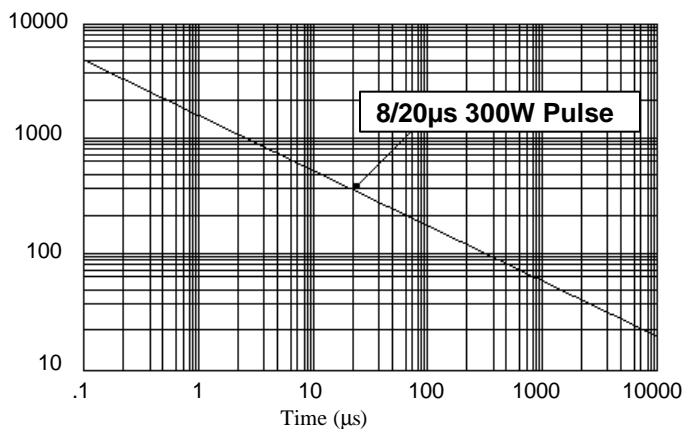


Figure 1. Peak Pulse Power Vs Pulse Time (ms)

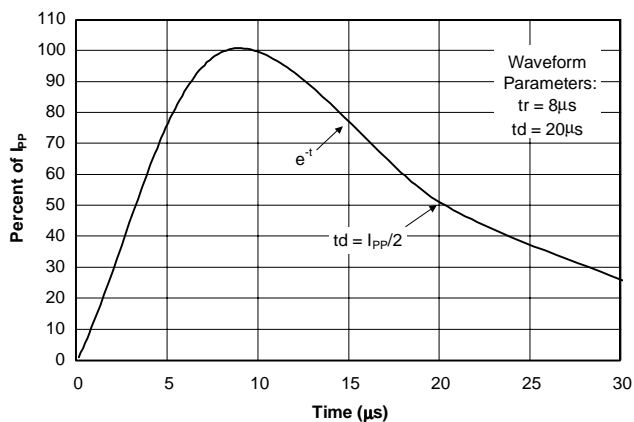


Figure 2. Pulse Wave Form

TECHNICAL DATA

DISCLAIMER:

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice 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 written 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.