

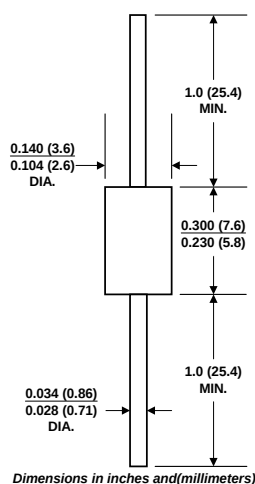
Technical Data
Data Sheet 1253, Rev. A

TWO TERMINAL THYRISTOR SERIES
SURFACE MOUNT SMB AND AXIAL LEAD DO-15
TWO TERMINAL THYRISTOR SURGE SUPPRESSOR

FEATURES:

- UL94V-0 Flammability Classification
- ESD Protection >40 kilovolts
- Low Capacitance for T1/E1 Trunk and Line Card Application
- High Surge Current Capability
(See Electrical Characteristics)
- Peak Off-State Voltage from 90 to 360 volts
- Meet IEC61000-4-4 & -5 Industry Requirement
- Provides Protection in Accordance with FCC Part 68, UL1459, Bellcore 1089, ITU-TK. 20 & K. 21

DO-204AC (DO-15)

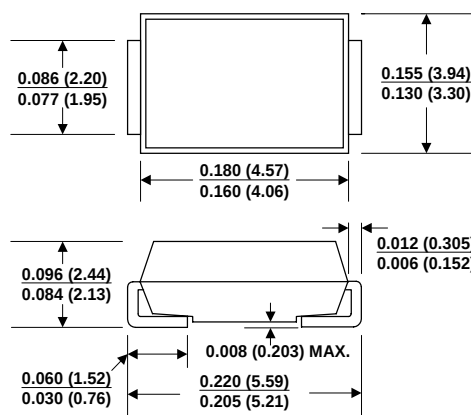


Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: JEDEC DO-15 Molded plastic over passivated Junction
Terminals: Tin Plated Axial leads, solderable per MIL-STD-750, Method 2026
Mounting Position: Any
Weight: 0.015 ounce, 0.4 gram

DO-214AA (SMB J-Bend)



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: JEDEC DO-214AA Molded plastic over passivated junction
Terminal: Solder plated, solderable per MIL-STD-750, Method 2026
Standard Packaging: 12mm tape (EIA STD RS-481)
Weight: 0.003 ounce, 0.093 gram

Data Sheet 1253, Rev. A

PART NUMBER	MARKING CODE		REPETITIVE PEAK OFF-STAGE VOLTAGE V_{DRM} (VOLTS)	SWITCHING VOLTAGE @100V/ μ s V_s (VOLTS)	MINIMUM HOLDING CURRENT $dI/dt=1A/ms$ I_H (mA)	SWITCHING CURRENT I_s (mA)	SURGE RATINGS I_{PP} 10*1000 μ S (Amps)	ON-STAGE CURRENT I_T (A)	TYPICAL CAPACITANCE @50V,1MHz (pF)
	FOR AXIAL DO-15 PACKAGE	FOR SMB PACKAGE							
SP1100SA	SP1100SAL	GF	90	130	150	800	50	1	60
SP1300SA	SP1300SAL	GG	120	160	150	800	50	1	40
SP1500SA	SP1500SAL	GH	140	180	150	800	50	1	40
SP1800SA	SP1800SAL	GI	160	220	150	800	50	1	40
SP2300SA	SP2300SAL	GJ	190	260	150	800	50	1	30
SP2600SA	SP2600SAL	GK	220	300	150	800	50	1	30
SP3100SA	SP3100SAL	GL	275	350	150	800	50	1	30
SP3500SA	SP3500SAL	GM	300	400	150	800	50	1	30
SP4000SA	SP4000SAL	GO	360	450	150	800	50	1	30
SP1100SB	SP1100SBL	GS	90	130	150	800	80	1	100
SP1300SB	SP1300SBL	GT	120	160	150	800	80	1	70
SP1500SB	SP1500SBL	GU	140	180	150	800	80	1	70
SP1800SB	SP1800SBL	GV	160	220	150	800	80	1	70
SP2300SB	SP2300SBL	GW	190	260	150	800	80	1	50
SP2600SB	SP2600SBL	GX	220	300	150	800	80	1	50
SP3100SB	SP3100SBL	GY	275	350	150	800	80	1	40
SP3500SB	SP3500SBL	GZ	300	400	150	800	80	1	40
SP4000SB	SP4000SBL	GN	360	450	150	800	80	1	40
SP1100SC	SP1100SCL	HF	90	130	150	800	100	1	100
SP1300SC	SP1300SCL	HG	120	160	150	800	100	1	70
SP1500SC	SP1500SCL	HH	140	180	150	800	100	1	70
SP1800SC	SP1800SCL	HI	160	220	150	800	100	1	70
SP2300SC	SP2300SCL	HJ	190	260	150	800	100	1	50
SP2600SC	SP2600SCL	HK	220	300	150	800	100	1	50
SP3100SC	SP3100SCL	HL	275	350	150	800	100	1	40
SP3500SC	SP3500SCL	HM	300	400	150	800	100	1	40
SP4000SC	SP4000SCL	HS	360	450	150	800	100	1	40

Maximum Off-State Current @ V_{DRM} : 5 μ A

Maximum On-State Voltage @ I_T : 5 Volts

For AXIAL devices, use suffix L (e.g. P3100SAL). Electrical characteristics apply in both AXIAL and Surface Mounted Devices.

Fig.1 Pulse Wave Form Example

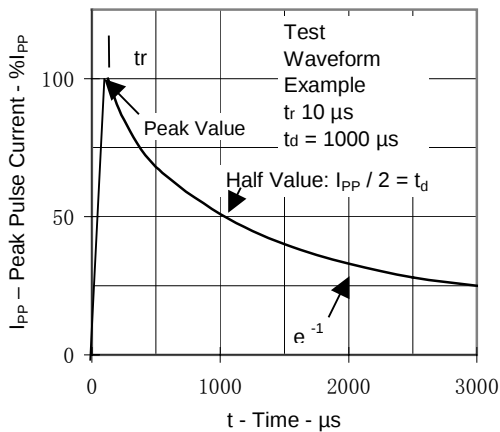
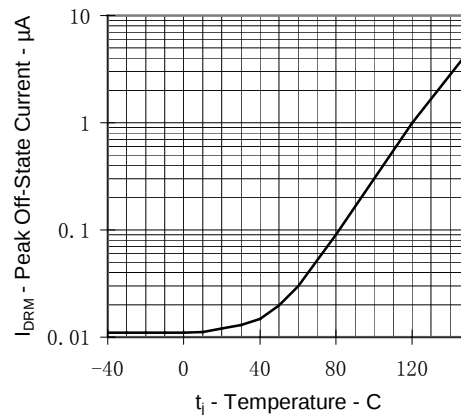


Fig.2 Typical Peak Off-State Current vs Junction Temperature



Data Sheet 1253, Rev. A

Fig.3 Typical On-State Current vs On-State Voltage

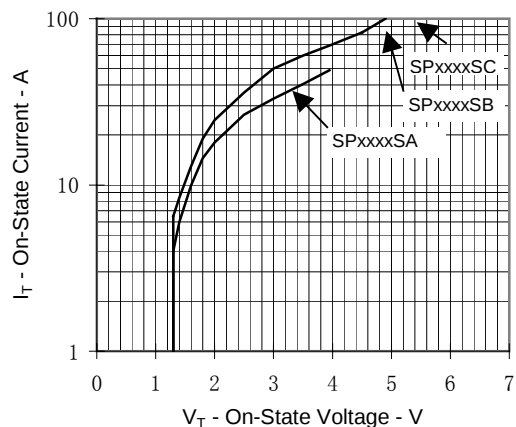


Fig.4 Typical Holding Current Vs Junction Temperature

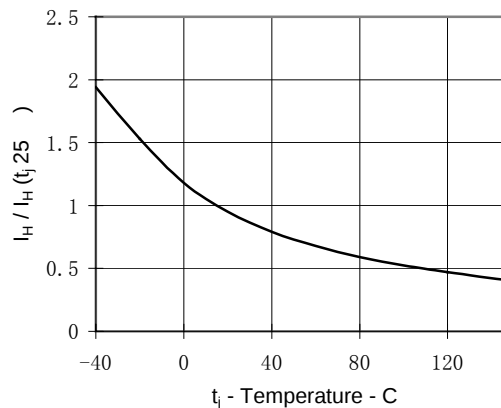


Fig.5 Typical normalized V_S vs Junction Temperature

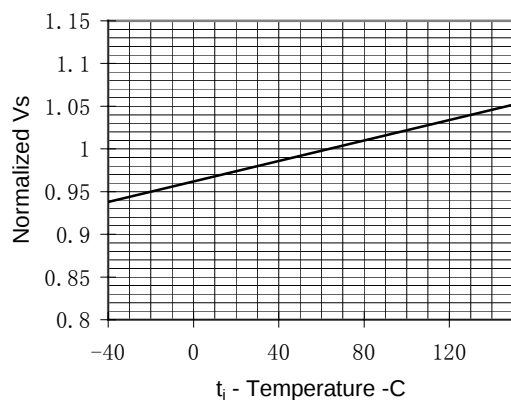


Fig.6 On-State Current vs Surge Current

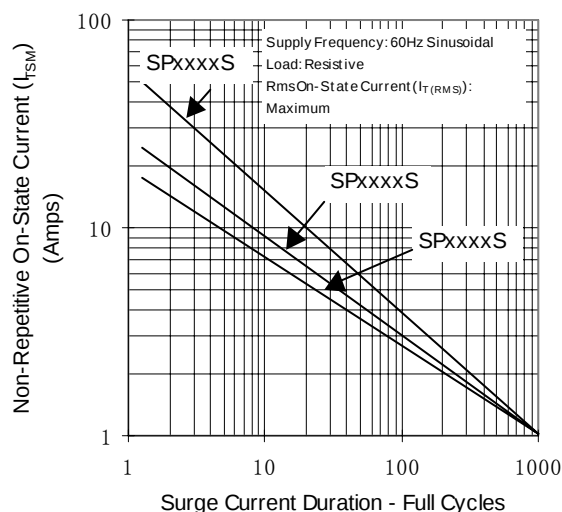
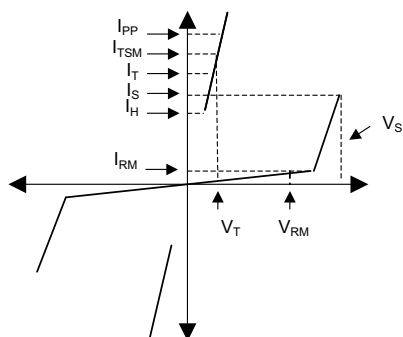


Fig.7 V - I Characteristics Curve



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.