TSP0080SB-TSP4200SB

Surface Mount

Thyristor Surge Protective Devices

Description

TSP0080SB – TSP4200SB Series are designed to protect broadband equipment such as modems, line card, CPE and DSL from damaging over-voltage transients.

The series provides a surface mount solution that enables equipment to comply with global regulatory standards.

Features-

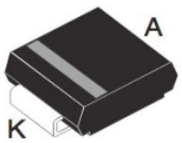
- Low voltage overshoot
- Low on-state voltage
- Does not degrade surge capability after multiple surge events within limit
- Fails short circuit when surged in excess of ratings
- Low Capacitance
- RoHS compliant package

Applications

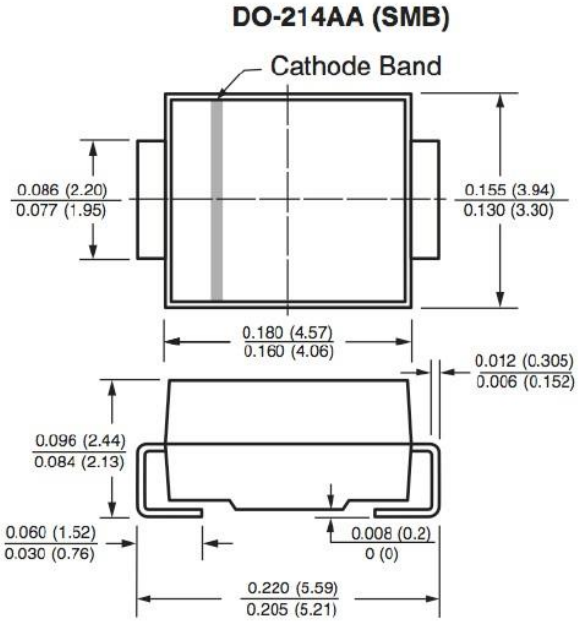
- TIA-968-A
- ITU K.20/21 Enhanced level
- ITU K.20/21 Basic Level
- GR 1089 Inter building
- GR 1089 Inter building
- IEC 6100-4-5
- YD/T 1082 YD/T 993 YD/T 950

Packing Information

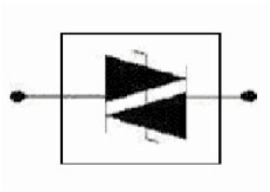
3,000/Reel



RoHS
COMPLIANT



Graphic symbol



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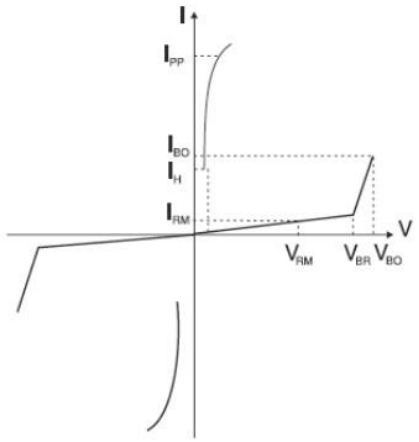
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Absolute ratings @25°C Unless Otherwise Specified

Symbol	Parameter		Value	Unit
T_S	Storage Temperature Range		-55 to +150	°C
T_J	Maximum Junction Temperature		150	°C
I_{PP}	Repetitive peak pulse current	10/1000µs	75	A
		10/560µs	100	
		10/160µs	150	
		8/20µs	250	
		2/10µs	250	
I_{TSM}	Non repetitive surge peak on-state current (sinusoidal)	t= 1s	8	A

Electrical Parameter

Symbol	Parameter
V_{RM}	Stand-off voltage
V_{BR}	Breakdown voltage
V_{BO}	Breakover voltage
I_{RM}	Leakage current
I_{PP}	Peak pulse current
I_{BO}	Breakover current
I_H	Holding current
V_R	Continuous reverse voltage
I_R	Leakage current at V_R
C0	Capacitance



Electrical Characteristics

Part Numbers	VRM	IRM	VBO	IBO	VT	IT	Co	IH
	Min.		Max.	Max.	Max.		Max	Min.
	V	Ua	V	mA	V	A	pF	mA
TSP0080SB	6	2	15	800	2	1	80	50
TSP2600SB	220	2	300	800	2.2	1	60	150
TSP3500SB	320	5	400	800	2.2	1	25	150
TSP4200SB	390	5	500	800	2.2	1	25	150

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■Characteristics Curves

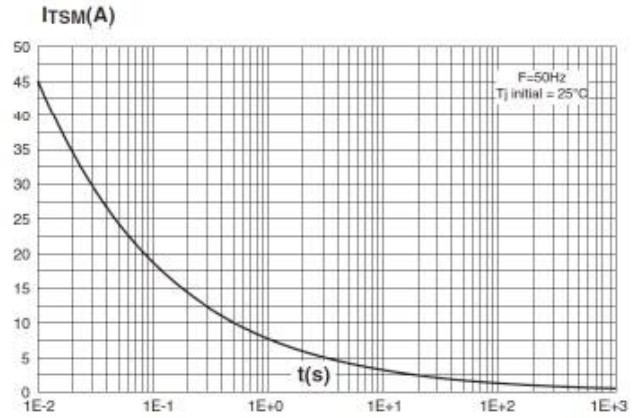

FIG.1- NON-REPETITIVE SURGE PEAK ON-STATE CURRENT VERSUS OVERLOAD DURATION

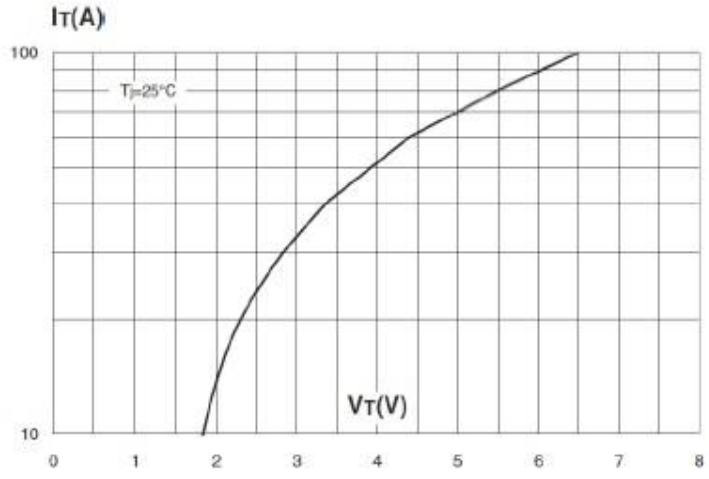

FIG.2- ON-STATE CURRENT VERSUS ON-STATE CURRENT(TYPICAL VALUES)

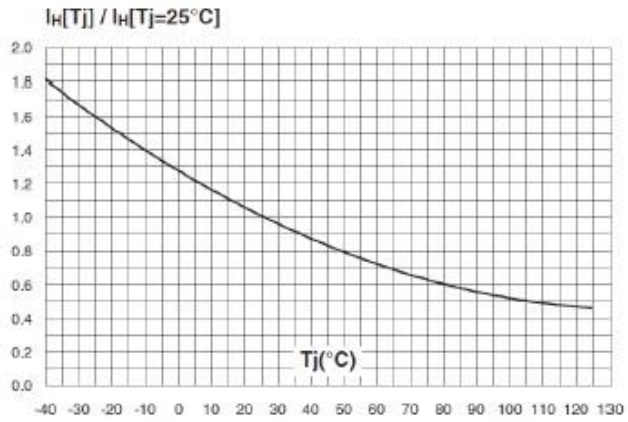

FIG.3- RELATIVE VARIATION OF HOLDING CURRENT VERSUS JUNCTION TEMPERATURE

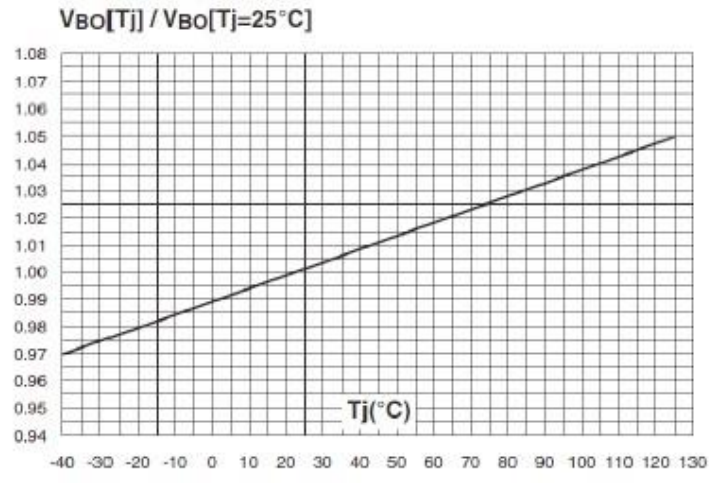

FIG.4- RELATIVE VARIATION OF BREAK OVER VOLTAGE VERSUS JUNCTION TEMPERATURE

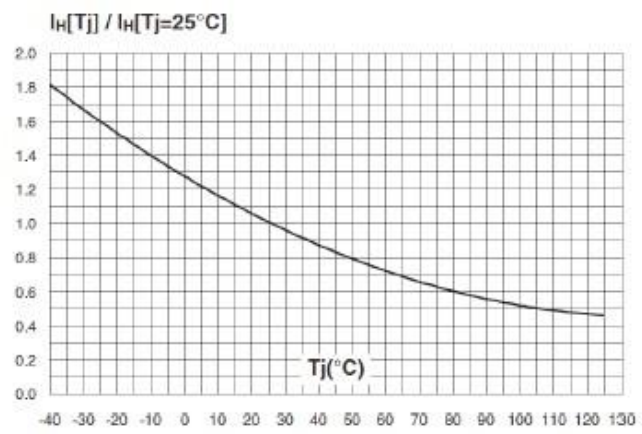

FIG.5- RELATIVE VARIATION OF HOLDING CURRENT VERSUS JUNCTION TEMPERATURE

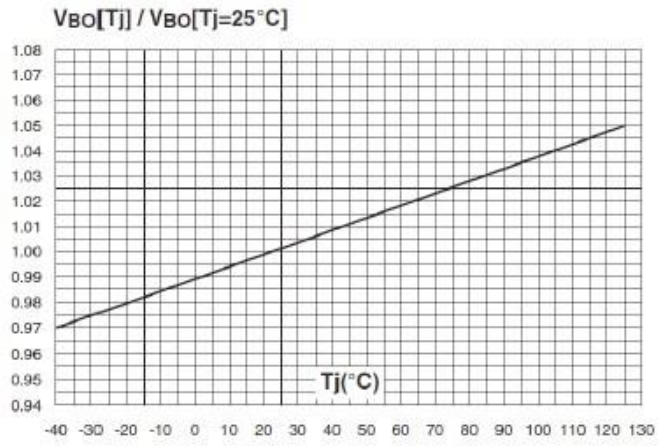

FIG.4- RELATIVE VARIATION OF BREAK OVER VOLTAGE VERSUS JUNCTION TEMPERATURE

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■Characteristics Curves

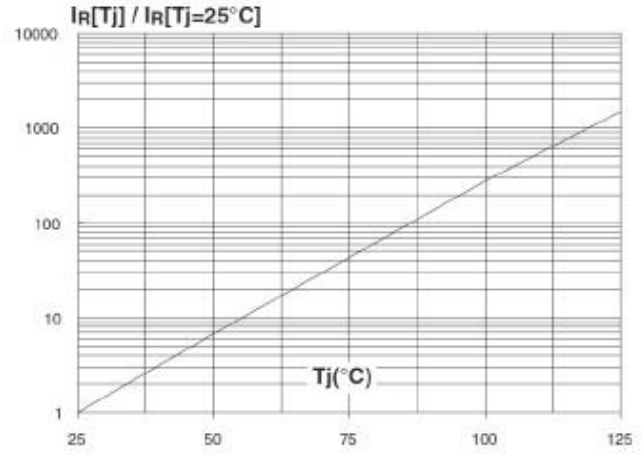

FIG.7- RELATIVE VARIATION OF LEAKAGE CURRENT VERSUS REVERSE VOLTAGE APPLIED(TYPICAL VALUSE)

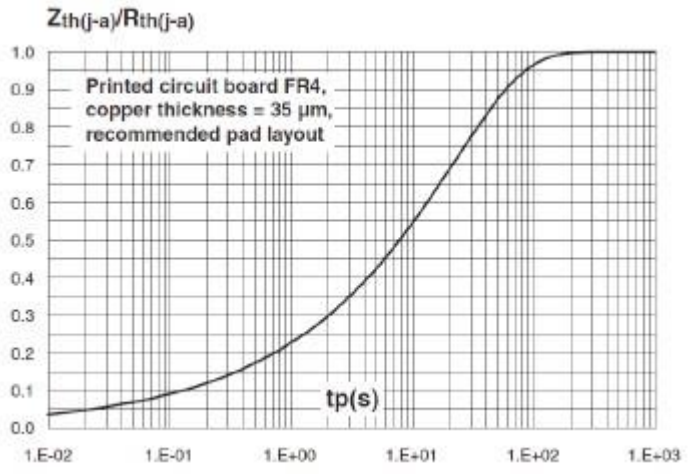

FIG.8- VARIATION OF THERMAL IMPEDANCE JUNCTION TO AMBIENT VERSUS PULSE DURATION

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