



DESCRIPTION:

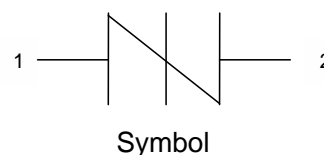


PxxxxSD series thyristors are a type of semiconductor component. They are designed to protect baseband equipment from damaging overvoltage transients such as modems, telephones, line cards, answering machines, FAX machines, T1/E1, xDSL and more.

FEATURES:

- Excellent capability of absorbing transient surge.
- Quick response to surge voltage (ns Level).
- Eliminates overvoltage caused by fast rising transients.
- Moisture sensitivity level: Level 1.
- UL 497B item recognized. (File No.: E480698).
- IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact).
- Non degenerative.

SMB

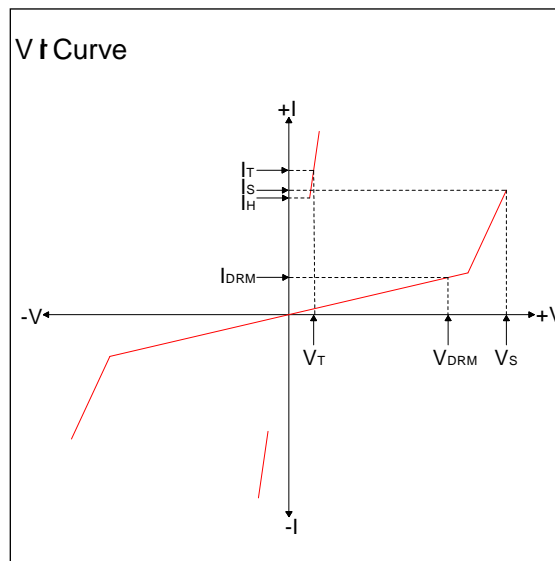


ABSOLUTE MAXIMUM RATINGS (TA=25°C, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Storage temperature range	T <sub>STG</sub>	-60 to +150	
Operating junction temperature range	T <sub>J</sub>	-40 to +125	
Repetitive peak pulse current@10/1000 s	I <sub>PP</sub>	200	A

ELECTRICAL CHARACTERISTICS (TA=25 °C)

Symbol	Parameter
V <sub>DRM</sub>	Peak off-state voltage
I <sub>DRM</sub>	Off-state current
V <sub>S</sub>	Switching voltage
I <sub>S</sub>	Switching current
V <sub>T</sub>	On-state voltage
I <sub>T</sub>	On-state current
I <sub>H</sub>	Holding current
C <sub>O</sub>	Off-state capacitance



MARKING



P-8D : Device Marking Code  
 1409: In ninth week, 2014

ELECTRICAL CHARACTERISTICS (V<sub>CC</sub>=2.5V, continued)

Part Number	I <sub>DRM</sub> @V <sub>DRM</sub>		V <sub>S</sub> @I <sub>S</sub>		V <sub>T</sub> @I <sub>T</sub>		I <sub>H</sub>	Co	Marking
	A	V	V	mA	V	A	mA	pF	
	max		max	max	max	max	min	max	
P0080SD	1	6	15	800	4	2.2	50	150	P-8D
P0640SD	1	58	4	2					

ORDERING INFORMATION

<b>P</b>	<b>008</b>	<b>0</b>	<b>S</b>	<b>D</b>
Series code P: SIDACTor	Median voltage	0: Bi-direction	Package type	Surge ratings:8kV(10/700 s)

SOLDERING PARAMETERS

Reflow Condition		Pb-Free assembly (see FIG.2)
Pre Heat	-Temperature Min ( $T_{s(min)}$ )	+150
	-Temperature Max( $T_{s(max)}$ )	+200
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquidus Temp ( $T_L$ ) to peak)		3 /sec. Max
$T_{s(max)}$ to $T_L$ - Ramp-up Rate		3 /sec. Max
Reflow	-Temperature( $T_L$ ) (Liquidus)	+217
	-Temperature( $t_L$ )	60-150 secs.
Peak Temp ( $T_p$ )		+260(+0/-5)
Time within 5 of actual Peak Temp ( $t_p$ )		30 secs. Max
Ramp-down Rate		6 /sec. Max
Time 25 to Peak Temp ( $T_P$ )		8 min. Max
Do not exceed		+260

FIG.1: tr x td pulse waveform

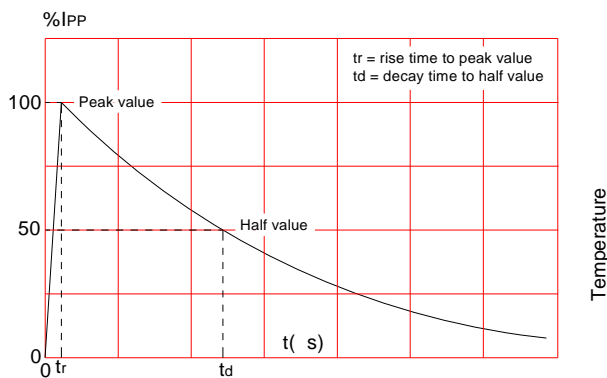


FIG.2: Reflow condition

FIG.3: Normalized Vs change vs. junction temperature

FIG.4: Normalized DC holding current vs. case temperature

$$I_H(T_j)/I_H(T_j=25)$$

0.4  
-40 -20 0 20 40 60 80 100 120 140

TAPEREESPECIFICATION

