

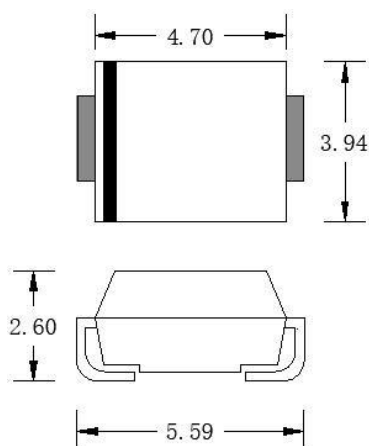
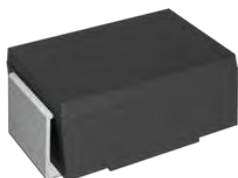
Description

P8000SC series thyristors are a type of semi-conduct component. They are designed in applications, modems, telephones, line cards, answering machines, FAX machines, SLICs, T1/E1, xDSL, PBXs and more.

Features

- For surface mounted applications to optimize board space
- Low profile package
- Bidirectional crowbar protection
- Low leakage current : $I = 5\mu A$ max
- Low on-state voltage
- Low Capacitance
- Solid-state silicon technology
- Eliminates overvoltage caused by fast rising transients

Dimensions & Symbol (Unit: mm Max)



Mechanical Characteristics

Package: SMB/DO-214AA

- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Standard Packaging: 12mm tape (EIA STD RS-481)
- Weight: 0.950g
- Terminal Connections: See Diagram Below
- Marking Information: See Below

Applications

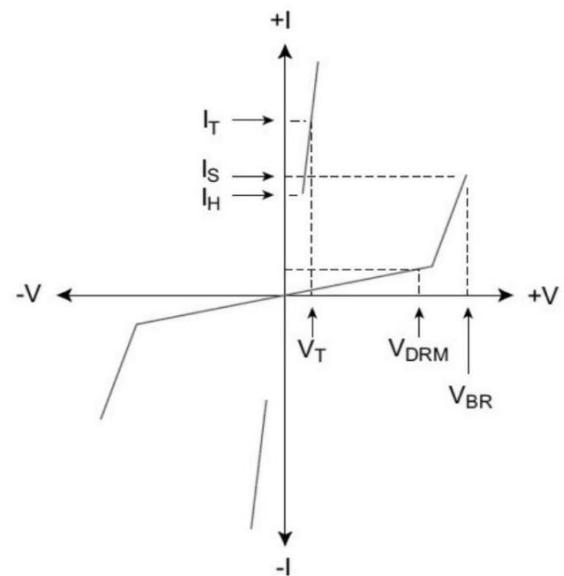
- TIA-968-A/B
- ITU K.20/21 Enhanced Level*
- ITU K.20/21 Basic Level*
- GR 1089 Inter-building*
- GR 1089 Intra-building
- IEC 61000-4-5 2nd edition
- YD/T 1082 YD/T 993 YD/T 950

Absolute Maximum Ratings (TA=25°C, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Storage temperature range	T _{stg}	-60 to +150	°C
Operating junction temperature range	T _j	-40 to +150	°C
Repetitive peak pulse current(5/320uS)	I _{PP}	150	A

Electrical Parameters & V-I Curve

Symbol	Parameter
V _{DRM}	Peak off-state voltage
I _{DRM}	Off-state current
V _S	Switching voltage
I _S	Switching current
V _T	On-state voltage
I _T	On-state current
I _H	Holding current
C _O	Off-state capacitance



Electrical Characteristics (TA=25°C)

Part Number	I _{DRM} @V _{DRM}		V _S ^① @I _S		V _T @I _T		I _H	C _O ^②	10/700us
	μA	V	V	mA	V	A	mA	pF	V
	max	PIN1-2 PIN2-1	max	max	max	max	min	max	Min
P8000SC	5	800	1050	800	4	1	20	100	6000

Notes:

- All measurements are made at an ambient temperature of 25°C. I_{PP} applies to -40°C through +85°C temperature range.
- Off-state capacitance (C_O) is measured at 1 MHz with a 2 V bias and is typical value.

Ratings And V-I Characteristics Curves ($T_A=25^{\circ}\text{C}$, unless otherwise noted)

FIG.1: $t_r \times t_d$ pulse waveform

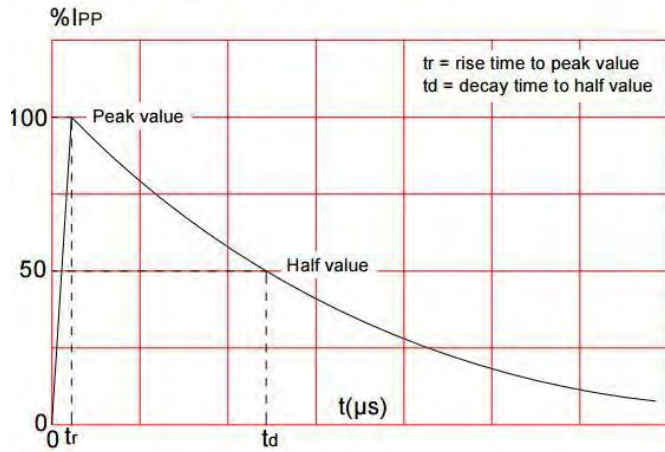


FIG.2: Reflow condition

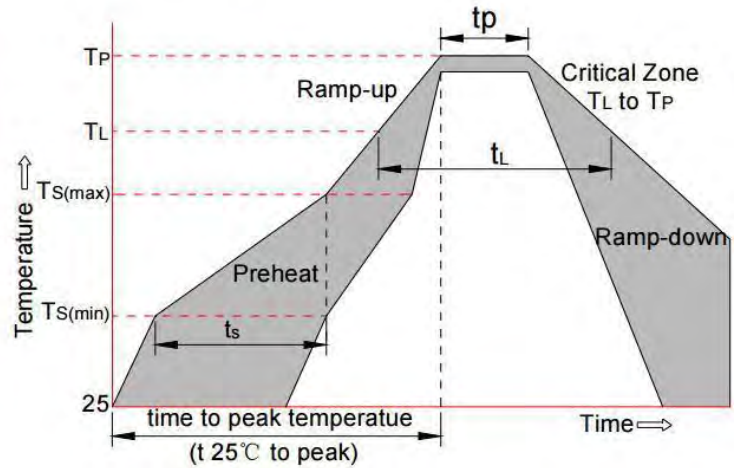


FIG.3: Normalized V_s change vs. junction temperature

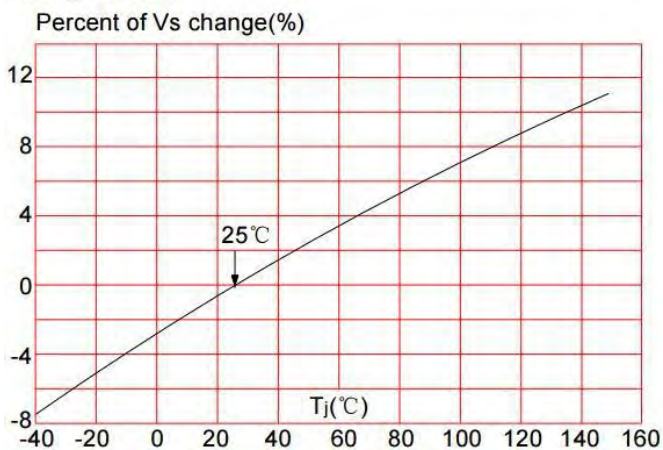
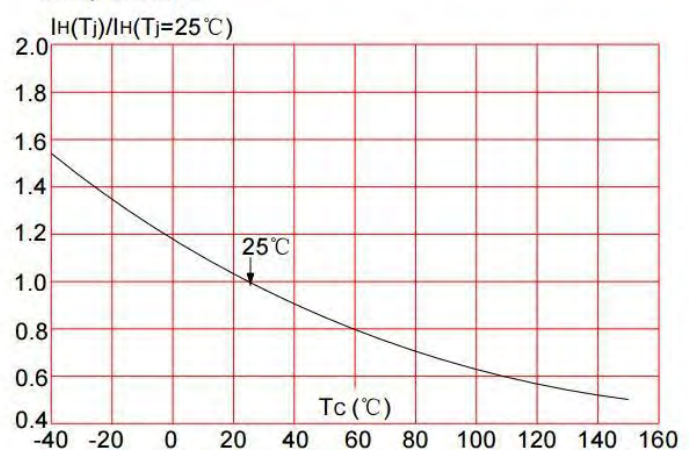


FIG.4: Normalized DC holding current vs. case temperature



Package Mechanical Data

Ref.(mm)	Millimeters	
	Min.	Max.
D	3.40	3.94
B	1.90	2.10
E	4.22	4.70
E1	5.21	5.59
A	1.95	2.6
A1	0	0.23
L	0.90	1.42

