

## PHASE CONTROL THYRISTOR (Capsule Version) | 普通可控硅(平板式)

### Features

- All diffuse technics
- Ceramic disc type seal
- Middle trigger
- Bifacial cooled
- High current

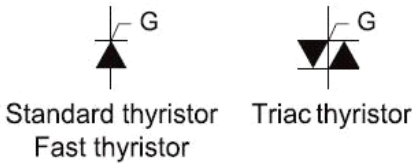
### Typical Applications

- Big power transformer
- AC & DC motor control
- AC & DC switch
- Phase control rectification
- Inverter

### Explanation

- $I_{GT}, V_{GT}, I_H$  are all  $T_A=25^\circ\text{C}$  test data, others are all  $T_A=T_{jm}$  test data.
- $I^2t = I_{TSM}^2 \times t_W / 2$ :  $t_W$  = Half sine wave current, when at 50Hz,  
 $I^2t = 0.005 I_{TSM}^2 (\text{A}^2\text{S})$
- When at 60Hz,  $I_{TSM}(8.3\text{ms}) = I_{TSM}(10\text{ms}) \times 1.066, T_j = T_{jm}$
- $I^2t(8.3\text{ms}) = I^2t(10\text{ms}) \times 0.943, T_j = T_{jm}$

### Polarity



### Ordering information Table

Device Code **ST 1000 C 16 K**

① ② ③ ④ ⑤

- 1** -ST=Standard thyristor  
SST=Triac thyristor  
KST=Fast thyristor  
KE=Welder thyristor  
GTO=High frequency thyristor
- 2** -Current code= $I_{T(AV)}$
- 3** -C=capsule version
- 4** -Voltage code=code x 100= $V_{RRM}$
- 5** -C=capsule case (A-puk) & (E-puk) L=capsule case (B-puk)  
K=capsule case (K-puk) R=capsule case (R-puk)

Notice: For other different outline, pls contact ZENLI.



### ELECTRICAL CHARACTERISTICS

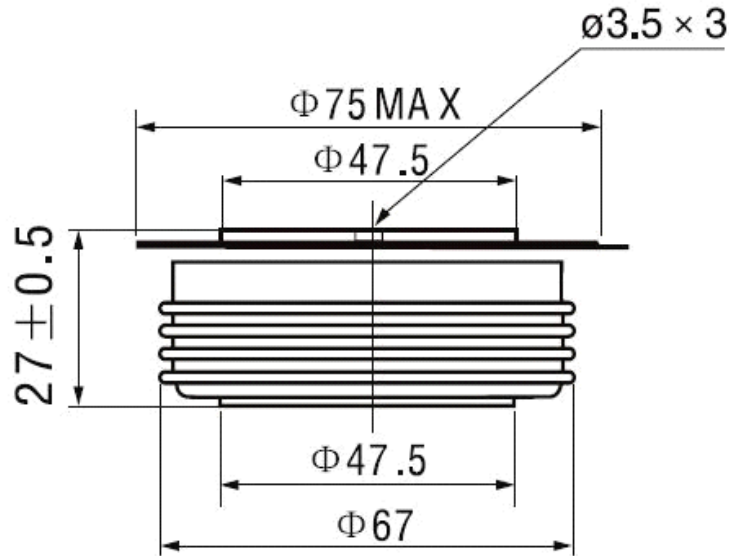
Symbol	Parameter	Conditions	ST1000	ST1200	ST1500	Unit
$I_{T(AV)}$	Average on-state current	$T_{HS}=55^\circ\text{C}$	1000	1200	1500	A
$I_{T(RMS)}$	RMS on-state current	$T_{HS}=55^\circ\text{C}$	2200	2640	3300	A
$V_{RRM}$	Repetitive peak reverse voltage	$T_{HS}=140^\circ\text{C}$	200-5000			V
$I_{RRM}$	Repetitive peak reverse current	$T_{HS}=140^\circ\text{C}$	$\leq 80.0$	$\leq 120.0$	$\leq 120.0$	mA
$V_{TM}$	On-state voltage	$T_{HS}=25^\circ\text{C}$	2.4	2.4	2.4	V
$I_{TM}$	On-state Current	$T_{HS}=25^\circ\text{C}$	3000	3000	3000	A
$I_{GT}$	Gate Trigger Current	$T_{HS}=25^\circ\text{C}$	40-300			mA
$V_{GT}$	Gate Trigger Voltage	$T_{HS}=25^\circ\text{C}$	0.8-3.0			V
$I_H$	Holding Current	$T_{HS}=25^\circ\text{C}$	$\leq 300$	$\leq 300$	$\leq 300$	mA
dv/dt	Rate Of Rise Of On-State Voltage	$T_{HS}=25^\circ\text{C}$	$\geq 500$			V/us
di/dt	Rate Of Rise Of On-State Current	$T_{HS}=25^\circ\text{C}$	$\geq 200$			A/us
R j-c	Peak gate forward voltage		$\leq 0.022$	$\leq 0.020$	$\leq 0.017$	$^\circ\text{C}/\text{W}$
$T_j$	Junction temperature		-40~+125			$^\circ\text{C}$
$T_{stg}$	Storage temperature		-40~+125			$^\circ\text{C}$
MT	Mounting torque		21-30	21-30	27-34	KN
Wt	Weight	Typical value	480	480	530	g

**PHASE CONTROL THYRISTOR (Capsule Version) | 普通可控硅(平板式)**

**Outline table**

(Dimension in mm)

**E8 K-PUK**



**E9**

