

# KS300A-E

## BI-DIRECTIONAL THYRISTOR



### Features

Two anti-parallel thyristors on one Si-wafer  
Hermetic metal cases with ceramic insulators  
Capsule packages for double sides cooling

### Application

High power industrial and power transmission  
DC and AC motor control  
AC controllers

$I_{T(RMS)}$	300 A
$V_{DRM}/V_{RRM}$	500~1800 V
$I_{TSM}$	2.5KA
$I^2t$	31 KA <sup>2</sup> S

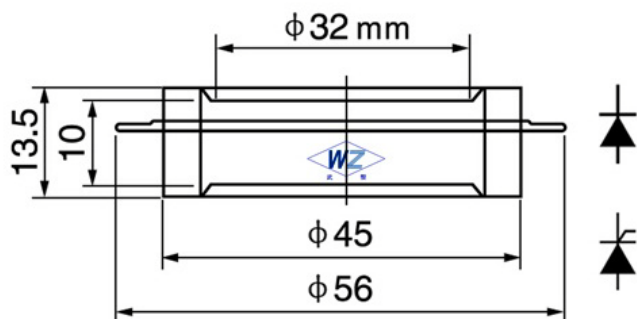
Symb.		parameter	Test Conditions	$T_{J(°C)}$	Value	Unit
Current Ratings	$I_{T(RMS)}$	RMS current	180° half sine wave 50Hz Double side cooled $T_{hs}=101°C$	125	300	A
	$I_{T(RMS)}$	RMS current	180° half sine wave 50Hz Double side cooled $T_{hs}=55°C$	125	629	A
	$I_{TSM}$	Surge on-state current	10ms half sine wave	125	2.5	KA
	$I^2t$	$I^2t$ for fusing coordination	$V_R=0.6V_{RRM}$	125	31	KA <sup>2</sup> S
Characteristics	$V_{DRM}$ $V_{RRM}$	Repetitive peak off-state voltage Repetitive peak reverse voltage	$V_{DRM}\&V_{RRM}$ tp=10ms $V_{DSM}\&V_{RSM}=V_{DRM}\&V_{RRM}+100V$	125	500-1800	V
	$I_{DRM}$ $I_{RRM}$	Repetitive peak current	$V_{DM}=V_{DRM}$ $V_{RM}=V_{RRM}$	125	Max.30	mA
	$V_{TO}$	Threshold voltage		125	Max.0.99	V
	$V_{TM}$	Peak on-state voltage	$I_{TM}=500A, F=7.0KN$	25	Max.2.4	V
	$r_T$	On-state slop resistance		125	Max.1.80	mΩ
	$I_H$	Holding current	$V_A=12V, I_A=1A$	25	20-200	ma
Dynamic Parameters	dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=67\%V_{DRM}$	125	Max.50	V/μs
	di/dt	Critical rate of rise of on-state current	$V_{DM}=67\%V_{DRM}$ to 600A, Gate pulse tr ≤0.5μs $I_{GM}=1.5A$	125	Max.50	A/μs
Gate Parameters	$I_{GT}$	Gate trigger current	$V_A=12V, I_A=1A$	25	20-200	mA
	$V_{GT}$	Gate trigger voltage		25	0.8-2.5	V

## Thermal & Mechanical Data

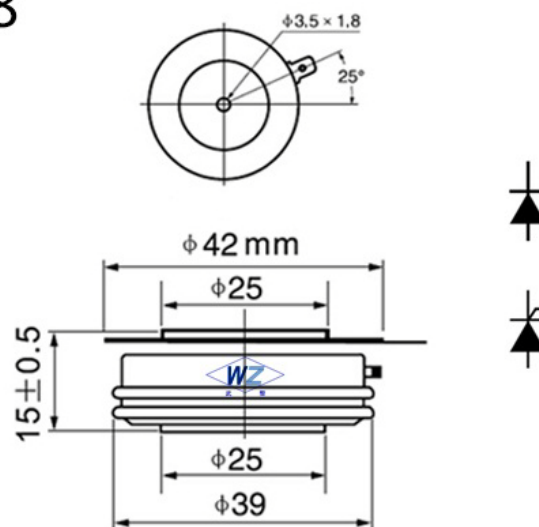
Symb.	parameter	Test Conditions	Value	Unit
$R_{th(j-h)}$	Thermal resistance Junction to heat sink	Double side cooled Clamping force 7.0KN	Max.0.055	$^{\circ}\text{C}/\text{W}$
$F_m$	Mounting force		5.3-10	KN
$T_{stg}$	Stored temperature		-40--+140	$^{\circ}\text{C}$
$W_t$	Weight		80	g

## Dimensions:

C3



C8



## Wuhan Wuzheng Rectifier Co., Ltd

**Add:** NO. 73 Gaoxin Five Road, East Lake New Technology Development Zone, Wuhan City, Hubei province.

**Tel :** 86-27-87001995

**Fax:** 86-27-87180920

**Email:** info@techele.com

**Web:** www.techele.com/en

cntechele.en.alibaba.com