

KP200A-E



PHASE CONTROL THYRISTOR

Features

Center amplifying gate
Metal case with ceramic insulator
Low on-state and switching losses

Application

AC controllers
DC and AC motor control
Controlled rectifiers

$I_{T(AV)}$	200 A
V_{DRM}/V_{RRM}	1100~1800 V
I_{TSM}	2.5KA
I^2T	32 KA ² S

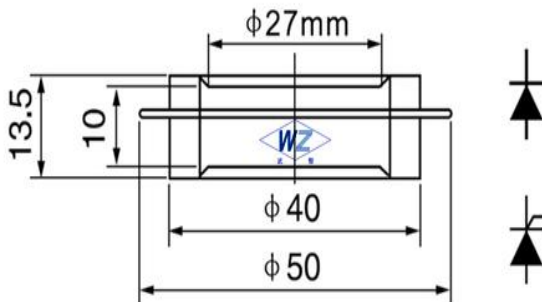
Symb.		parameter	Test Conditions	$T_{J(°C)}$	Value	Unit
Current Ratings	$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled $T_{hs}=97\text{°C}$	125	200	A
	$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled $T_{hs}=55\text{°C}$	125	377	A
	I_{TSM}	Surge on-state current	10ms half sine wave $V_R=0.6V_{RRM}$	125	2.5	KA
	I^2t	I ² T for fusing coordination		125	32	KA ² 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	1100-1800	V
	I_{DRM} I_{RRM}	Repetitive peak current	$V_{DM}=V_{DRM}$ $V_{RM}=V_{RRM}$	125	Max.16	mA
	V_{TO}	Threshold voltage		125	Max.0.85	V
	V_{TM}	Threshold voltage	$I_{TM}=900A, F=5.0KN$	25	2.2	V
	r_T	On-state slop resistance		125	1.2	mΩ
	I_H	Holding current	$V_A=12V, I_A=1A$	25	20-150	ma
Dynamic Parameters	dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=67\%V_{DRM}$	125	300	V/μs
	di/dt	Critical rate of rise of on-state current	$V_{DM}=67\%V_{DRM}$ to 600A, Gate pulse $t_r \leq 0.5\mu s$ $I_{GM}=1.5A$	125	100	A/μs
	t_{rr}	Reverse recovery time	$T_M=600A, t_p=1000\mu s, V_R=50V$	125	Max.12	μs
	Q_{rr}	Recovery charge	dv/dt=30V/μs, di/dt=-20A/μs	125	Max.600	μc
Gate Parameters	I_{GT}	Gate trigger current	$V_A=12V, I_A=1A$	25	30-200	mA
	V_{GT}	Gate trigger voltage		25	0.8-2.0	V
	V_{GD}	Non-trigger gate voltage	$V_{DM}=67\%V_{DRM}$	125	Min.0.3	V

Thermal & Mechanical Data

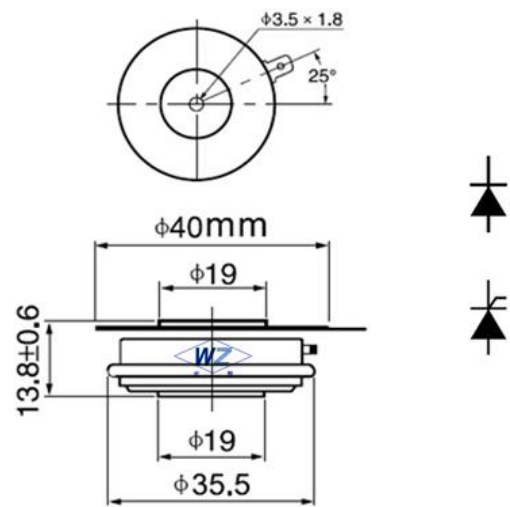
Symb.	parameter	Test Conditions	$T_{J(°C)}$	Value	Unit
$R_{th(j-h)}$	Thermal resistance Junction to heat sink	At 180° sine, double side cooled, Clamping force 5.0KN		Max.0.095	°C/W
F_m	Mounting force			3.3-5.5	KN
T_{stg}	Stored temperature			-40--+140	°C
W_t	Weight			55	g

Dimensions:

C2



C7



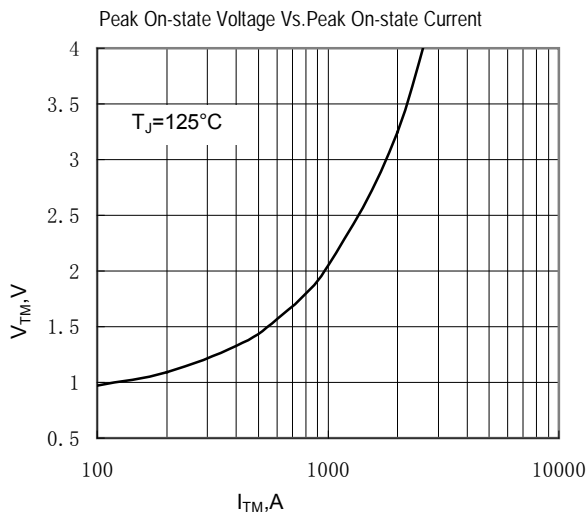


Fig.1

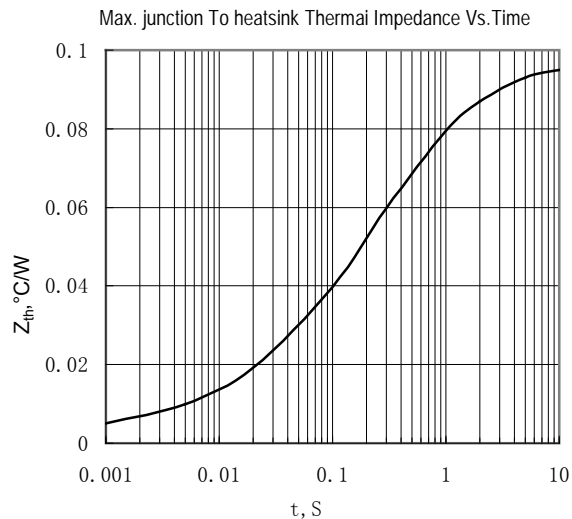


Fig.2

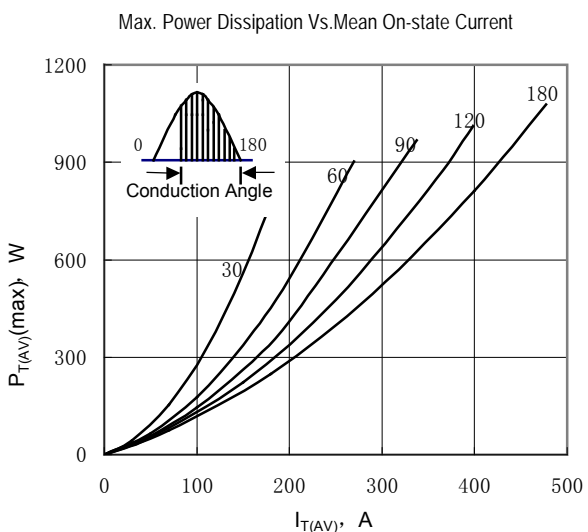


Fig.3

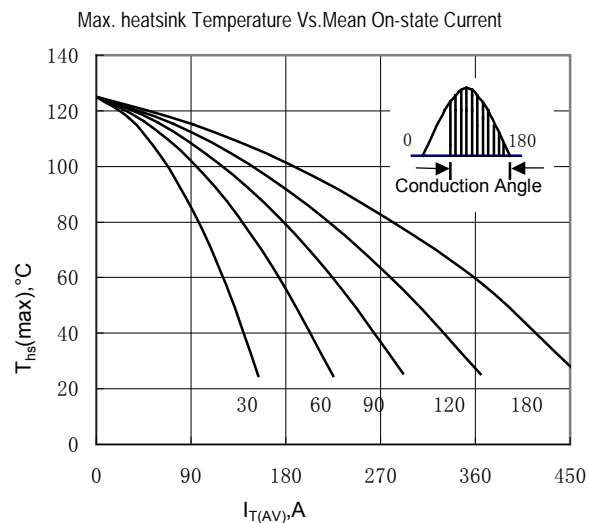


Fig.4

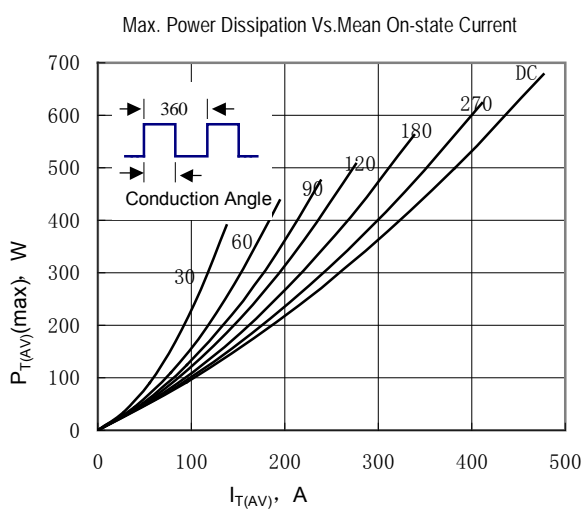


Fig.5

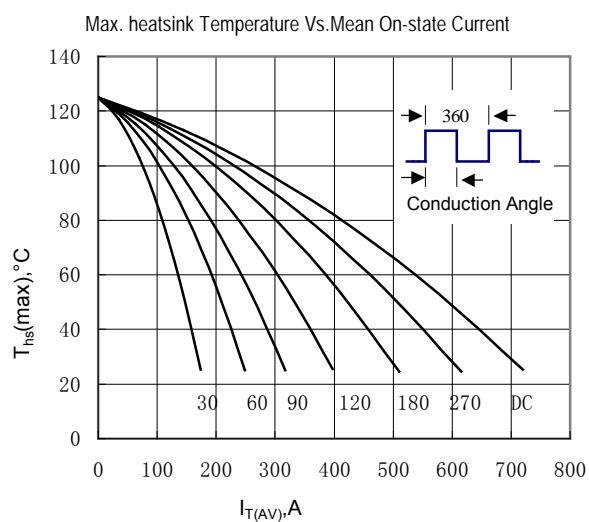
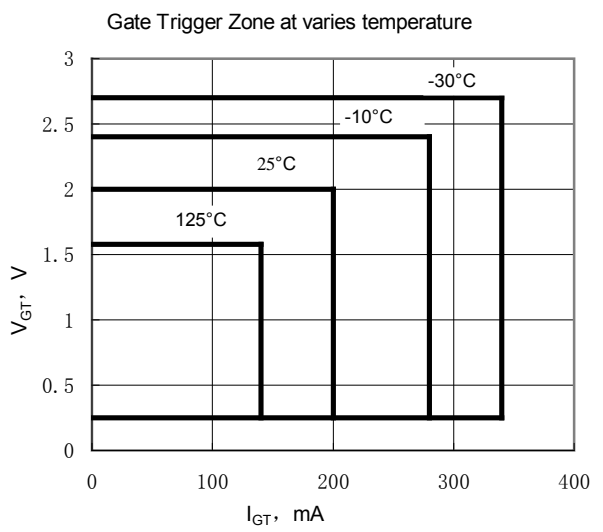
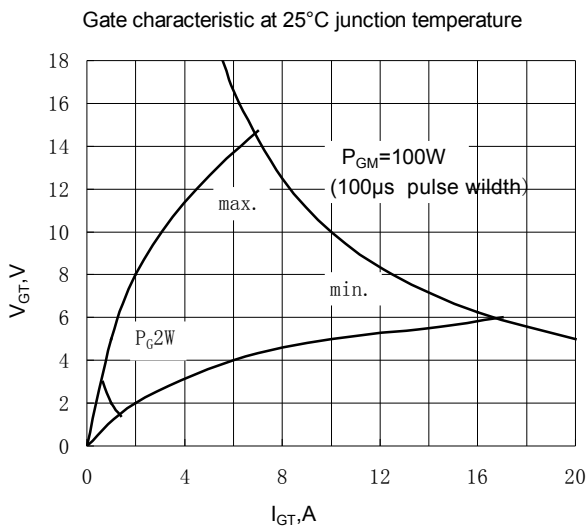
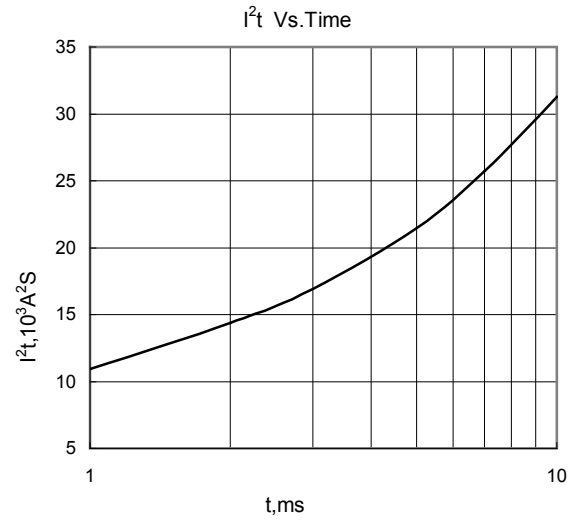
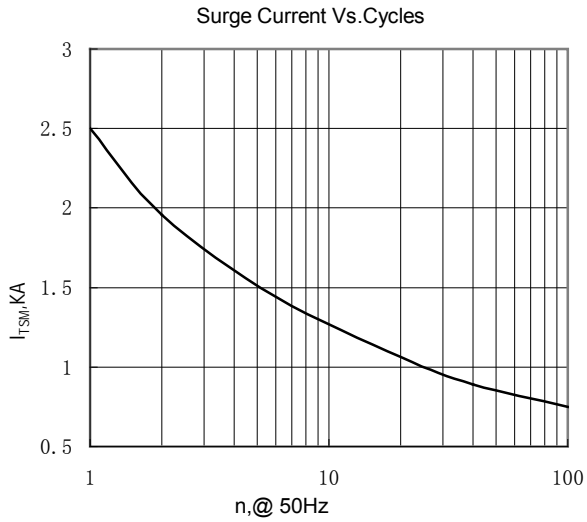


Fig.6



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