



浙江芯芯电子有限公司  
ZHEJIANG XINXIN ELECTRICAL CO., LTD.

## 产品规格书

### Specification of Products

产品名称：平板型

产品型号：KP4000A

浙江芯芯电子有限公司

ZHEJIANG XINXIN ELECTRICAL CO., LTD.

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### Features

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

### Typical Applications

- AC controllers
- DC and AC motor control
- Controlled rectifiers

$I_{T(AV)}$  4900 A  
 $V_{DRM}/V_{RRM}$  400-1000V  
 $I_{TSM}$  66 kA  
 $I^2t$  21780  $10^3 A^2S$



SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_j(^{\circ}C)$	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled,	125			5770	A
						4900	
$V_{DRM}$ $V_{RRM}$	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	400		1000	V
$I_{DRM}$ $I_{RRM}$	Repetitive peak current	$V_{DM} = V_{DRM}$ $V_{RM} = V_{RRM}$	125			250	mA
$I_{TSM}$	Surge on-state current	10ms half sine wave $V_R = 0.6V_{RRM}$	125			66	kA
$I^2t$	$I^2T$ for fusing coordination					21780	$A^2s * 10^3$
$V_{TO}$	Threshold voltage		125			0.88	V
$r_T$	On-state slop resistance					0.06	$m\Omega$
$V_{TM}$	Peak on-state voltage	$I_{TM} = 5000A, F = 70kN$	125			1.18	V
$dv/dt$	Critical rate of rise of off-state voltage	$V_{DM} = 0.67V_{DRM}$	125			1000	$V/\mu s$
$di/dt$	Critical rate of rise of on-state voltage current	$V_{DM} = 67\%V_{DRM}$ to 4000A, Gate pulse $t_r \leq 0.5\mu s$ $I_{GM} = 1.5A$	125			250	$A/\mu s$
$Q_{rr}$	Recovery charge	$I_{TM} = 2000A, tp = 2000\mu s, di/dt = -20A/\mu s, V_R = 50V$	125		3000		$\mu C$
$I_{GT}$	Gate trigger current	$V_A = 12V, I_A = 1A$	25	40		300	mA
$V_{GT}$	Gate trigger voltage			0.8		3.0	V
$I_H$	Holding current		20			300	mA
$V_{GD}$	Non-trigger gate voltage			0.3			V
$R_{th(j-c)}$	Thermal resistance Junction to case	At 180° sine double side cooled Clamping force 70.0kN				0.007	$^{\circ}C / W$
$R_{th(c-h)}$	Thermal resistance case to heatsink					0.002	
$F_m$	Mounting force			63		84	KN
$T_{stg}$	Stored temperature			-40		140	$^{\circ}C$
$W_t$	Weight				1390		g
Outline		KT84ct					

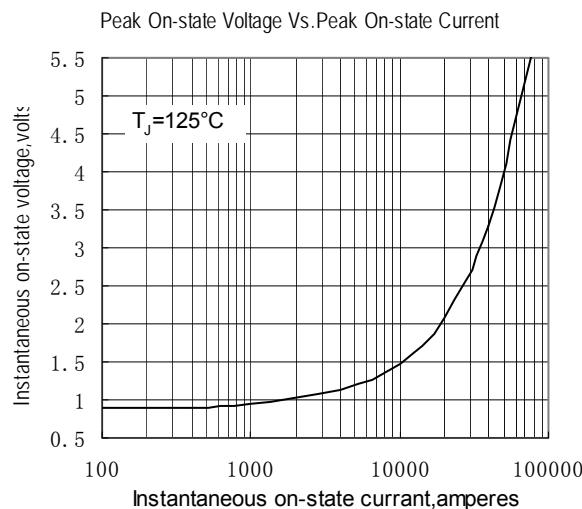


Fig.1

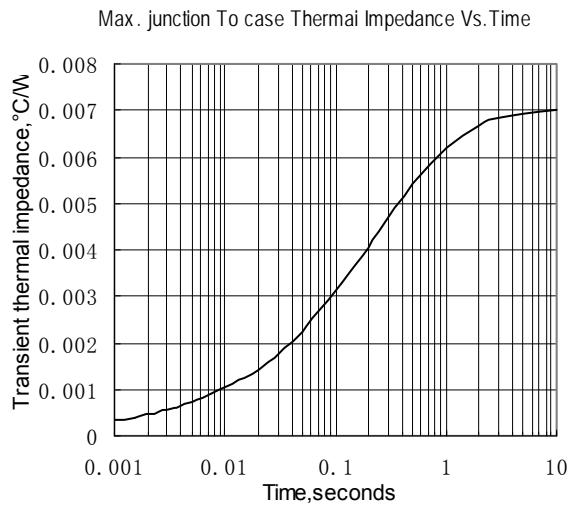


Fig.2

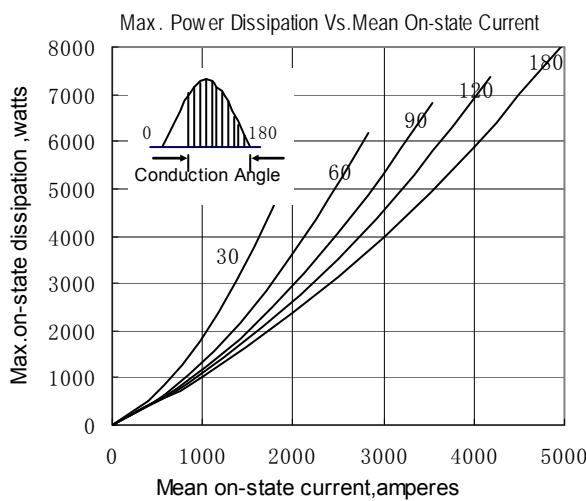


Fig.3

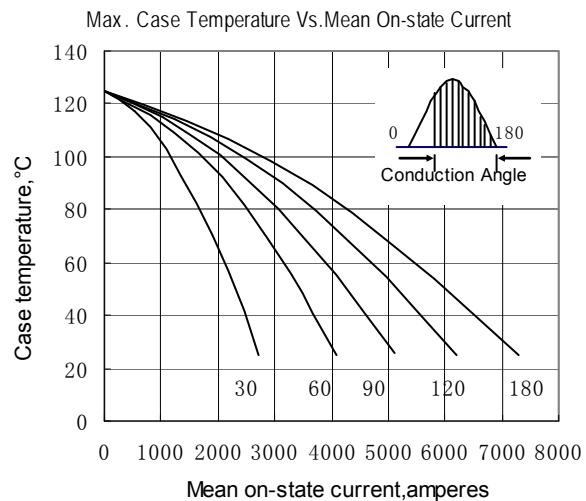


Fig.4

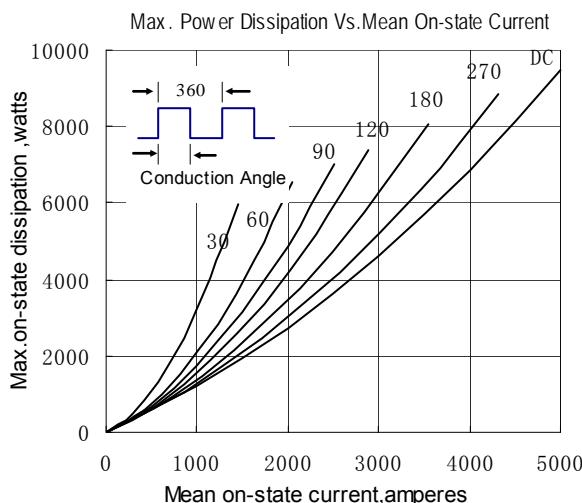


Fig.5

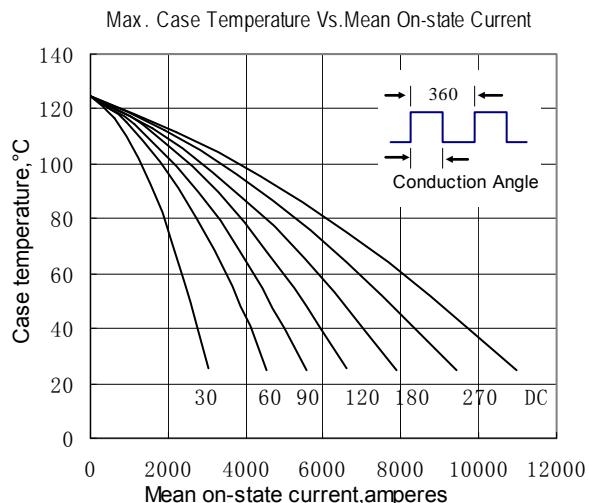


Fig.6

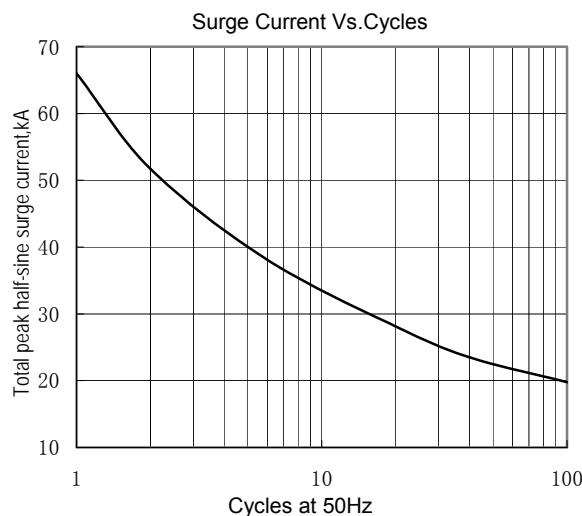


Fig.7

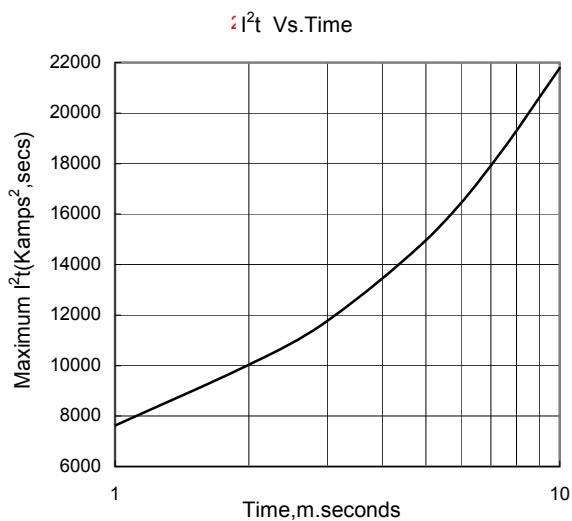


Fig.8

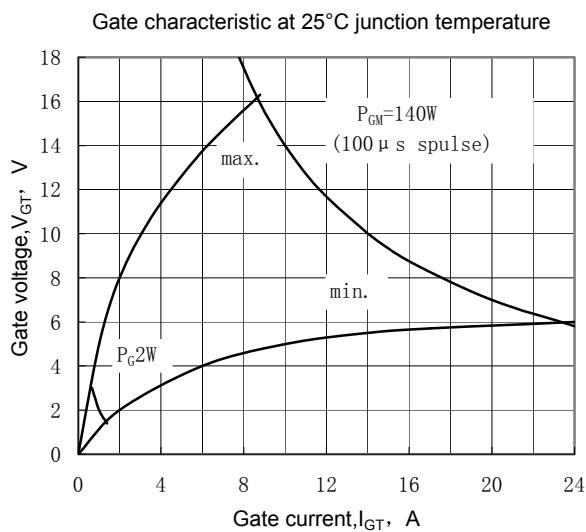


Fig.9

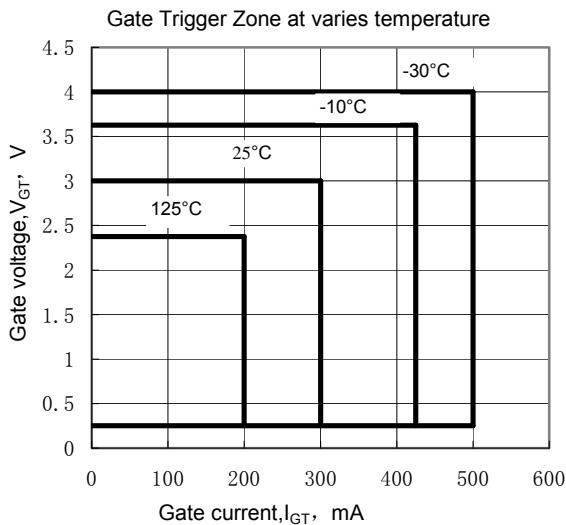


Fig.10

**Outline:**

