



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：KK3000A

浙江芯芯电子有限公司

ZHEJIANG XINXIN ELECTRICAL CO., LTD.

地址：浙江省缙云县壶镇镇浙江丽缙五金科技产业园苍山区块内

电话： 13857067071

邮编： 321404

E-mail:247145749@qq.com

<http://www.zjxxdz1.com>

拟制	审核	核准
丁国盛	李园利	麻伟阳

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### Features

- Interdigitated amplifying gates
- Fast turn-on and high  $dI/dt$
- Low switching losses

### Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters

$I_{T(AV)}$	<b>3800A</b>
$V_{DRM}/V_{RRM}$	<b>1900~2500V</b>
$t_q$	<b>40~110μs</b>
$I_{TSM}$	<b>44 kA</b>
$I^2t$	<b>9680 10<sup>3</sup>A<sup>2</sup>S</b>



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			3800	A
						2580	
$V_{DRM}$ $V_{RRM}$	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	1900		2500	V
$I_{DRM}$ $I_{RRM}$	Repetitive peak current	$V_D=V_{DRM}$ $V_R=V_{RRM}$	125			250	mA
$I_{TSM}$	Surge on-state current	10ms half sine wave $V_R=0.6V_{RRM}$	125			44	kA
$I^2t$	$I^2T$ for fusing coordination					9680	$A^2s \times 10^3$
$V_{TO}$	Threshold voltage		125			1.32	V
$r_T$	On-state slop resistance					0.14	$m\Omega$
$V_{TM}$	Peak on-state voltage	$I_{TM}=5000A, F=70kN$	125			2.02	V
$dv/dt$	Critical rate of rise of off-state voltage	$V_{DM}=0.67V_{DRM}$	125			500	$V/\mu s$
$di/dt$	Critical rate of rise of on-state current	$V_{DM}=67\%V_{DRM}$ , to 4000A Gate pulse $t_r \leq 0.5\mu s$ $I_{GM}=1.5A$	125			1200	$A/\mu s$
$Q_{rr}$	Recovery charge	$I_{TM}=2000A, tp=2000\mu s$ , $di/dt=-60A/\mu s, V_R=50V$	125		2100		$\mu C$
$t_q$	Circuit commutated turn-off time	$I_{TM}=2000A, tp=1000\mu s, V_R=50V$ $dv/dt=30V/\mu s, di/dt=-20A/\mu s$	125	40		110	$\mu s$
$I_{GT}$	Gate trigger current	$V_A=12V, I_A=1A$	25	40		450	mA
$V_{GT}$	Gate trigger voltage			0.9		4.5	V
$I_H$	Holding current			20		1000	mA
$V_{GD}$	Non-trigger gate voltage	$V_{DM}=67\%V_{DRM}$	125	0.3			V
$R_{th(j-c)}$	Thermal resistance Junction to case	At 180° sine double side cooled Clamping force 70 kN				0.007	$^\circ C / W$
$R_{th(c-h)}$	Thermal resistance case to heat sink					0.002	
$F_m$	Mounting force			63		84	kN
$T_{stg}$	Stored temperature			-40		140	°C
$W_t$	Weight				1390		g
Outline		KT84cT					

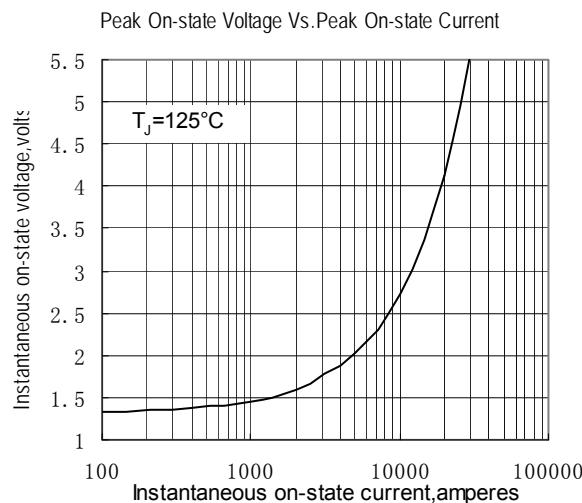


Fig.1

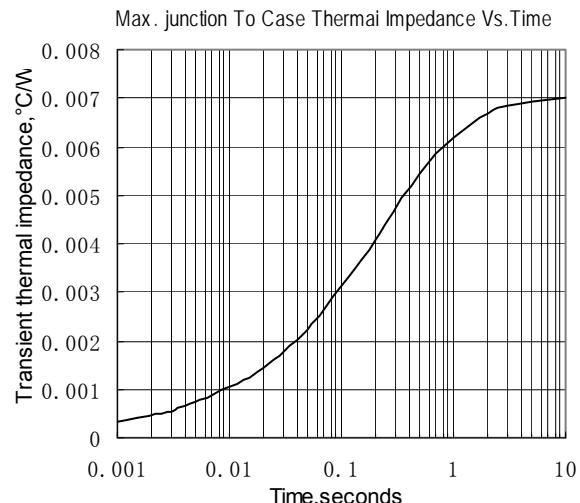


Fig.2

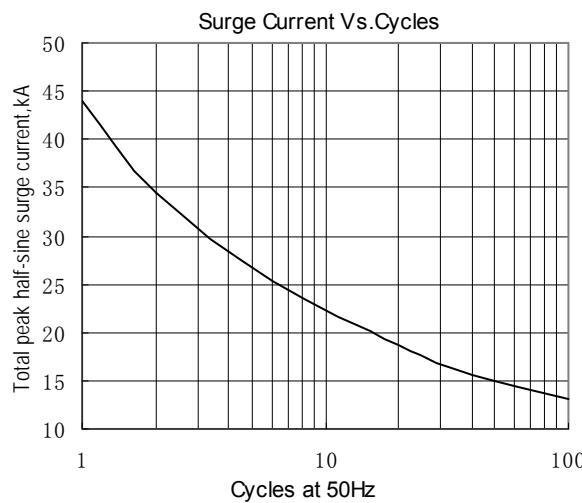


Fig.3

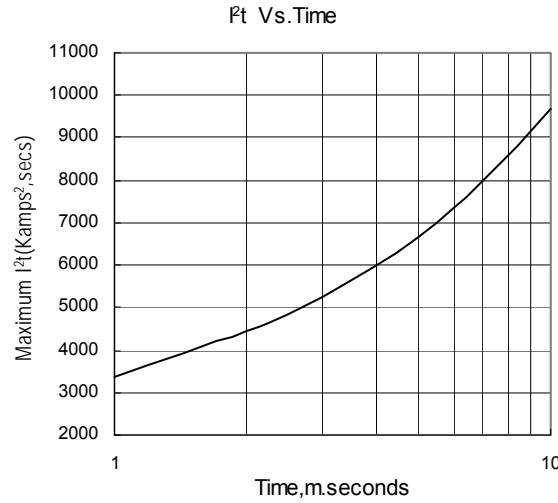


Fig.4

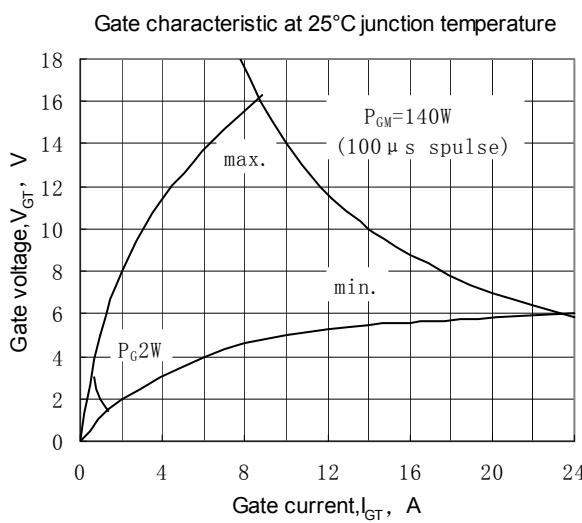


Fig.5

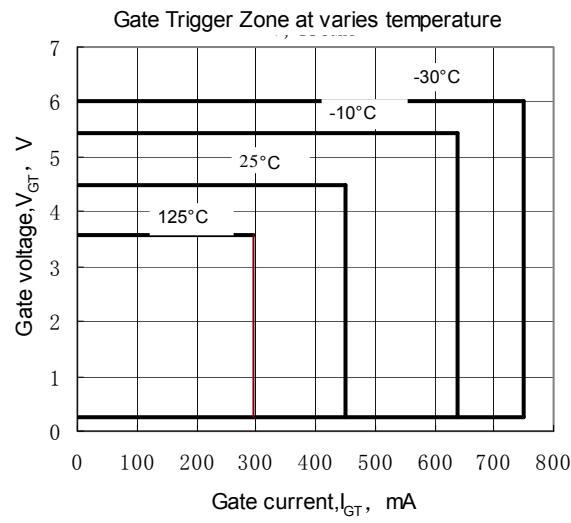


Fig.6

**Outline:**

