

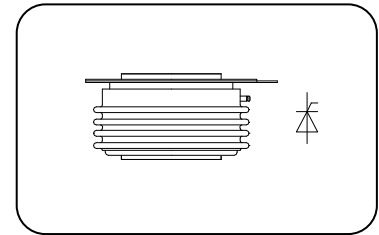
Features

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

Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters

$I_{T(AV)}$	1750A
V_{DRM}/V_{RRM}	800~1800V
t_q	18~50μs
I_{TSM}	18 kA
I^2t	1620 10³A²S



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			1750	A
						1170	
						1500	
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	$V_{DRM}\&V_{RRM}$, $t_p=10ms$ $V_{DSM}\&V_{RSM}=V_{DRM}\&V_{RRM}+100V$	125	800		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	$V_D=V_{DRM}$ $V_R=V_{RRM}$	125			120	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			18	kA
I^2t	I^2t for fusing coordination	$V_R=0.6V_{RRM}$				1620	A ² s*10 ³
V_{TO}	Threshold voltage		125			1.40	V
r_T	On-state slop resistance					0.28	m Ω
V_{TM}	Peak on-state voltage	$I_{TM}=3000A$, $F=28kN$	125			2.32	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=0.67V_{DRM}$	125			500	V/ μ s
di/dt	Critical rate of rise of on-state current	$V_{DM}=67\%V_{DRM}$ to 2500A, Gate pulse $t_r \leq 0.5\mu s$, $I_{GM}=1.5A$	125			1200	A/ μ s
Q_{rr}	Recovery charge	$I_{TM}=2000A$, $t_p=2000\mu s$, $di/dt=-60A/\mu s$, $V_R=50V$	125		800		μC
t_q	Circuit commutated turn-off time	$I_{TM}=1500A$, $t_p=1000\mu s$, $V_R=50V$ $dv/dt=30V/\mu s$, $di/dt=-20A/\mu s$	125	18		50	μs
I_{GT}	Gate trigger current		25	40		300	mA
V_{GT}	Gate trigger voltage	$V_A=12V$, $I_A=1A$		0.9		3.5	V
I_H	Holding current			20		500	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 28kN				0.016	$^{\circ}C/W$
$R_{th(c-h)}$	Thermal resistance case to heat sink					0.004	
F_m	Mounting force			21		30	kN
T_{stg}	Stored temperature			-40		140	$^{\circ}C$
W_t	Weight				650		g
Outline	KT54cT60						

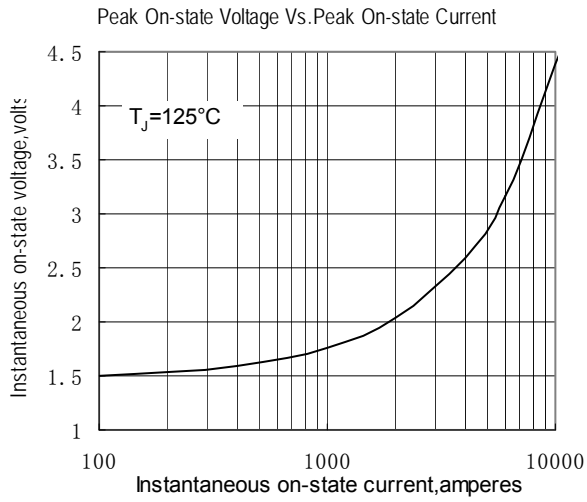


Fig.1

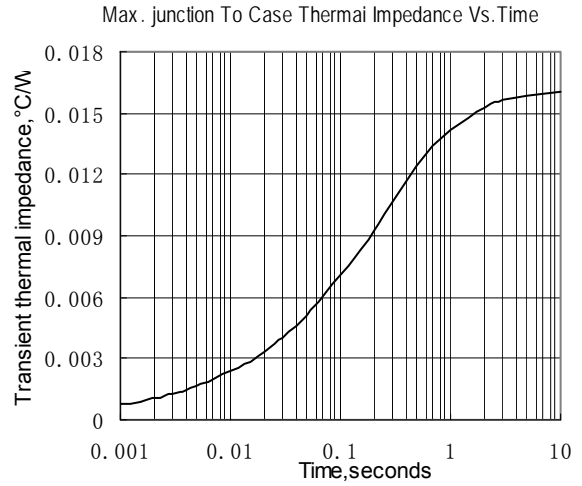


Fig.2

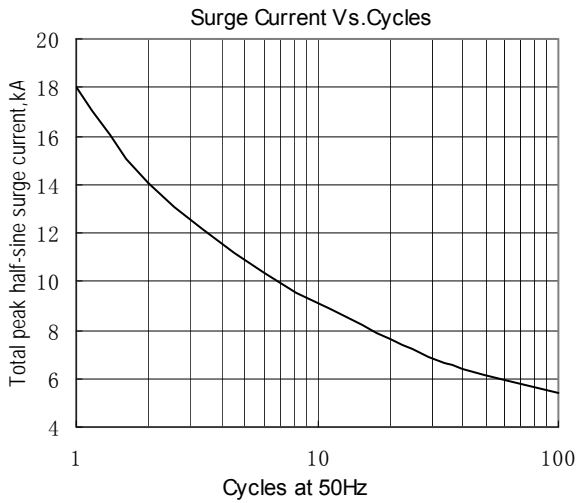


Fig.3

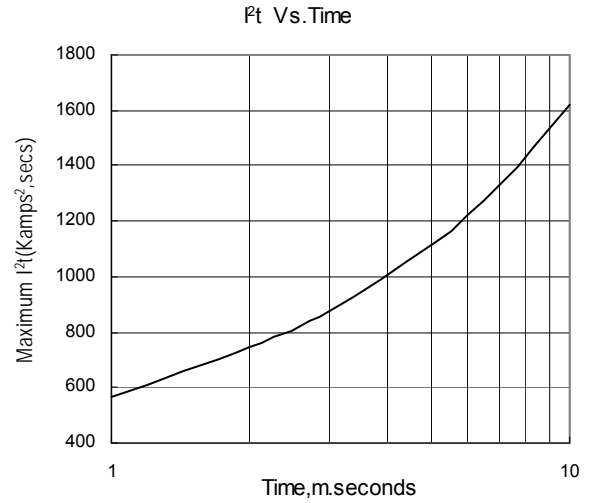


Fig.4

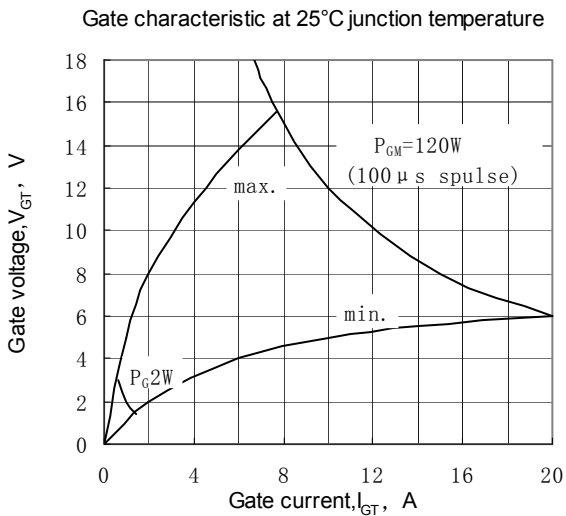


Fig.5

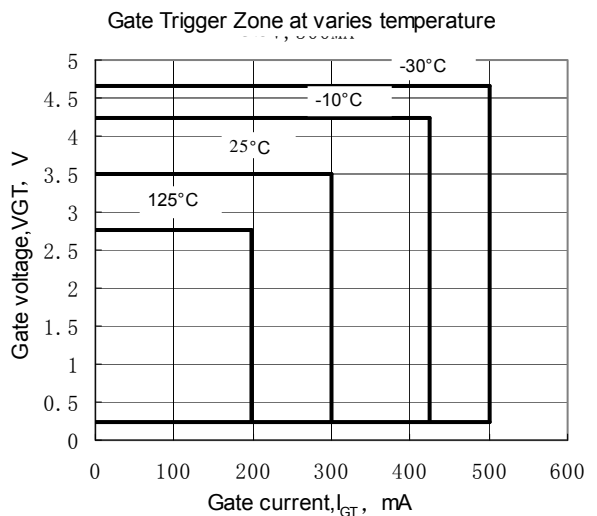


Fig.6

Outline:

