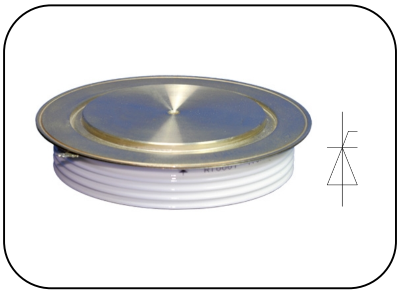

Features

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

Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters

Part No. H80KKE-KT73cT

$I_{T(AV)}$ **3600A**

V_{DRM},V_{RRM} **1600V 1800V**
2000V 2200V

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T_j(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled, T_C=55°C	125			3600	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms	125	1600		2200	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			250	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=0.6V_{RRM}	125			40	kA
I^2t	I^2t for fusing coordination					8000	A^2s*10^3
V_{TO}	Threshold voltage		125			1.14	V
r_T	On-state slope resistance					0.12	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=5000A, F=60kN	25			1.85	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=0.67V_{DRM}	125			1000	V/μs
di/dt	Critical rate of rise of on-state current	V_{DM}=0.67V_{DRM} Gate pulse t_r ≤0.5μs I_{GM}=1.5A	125			1200	A/μs
Q_{rr}	Recovery charge	I_{TM}=2000A,tp=4000μs, di/dt=-20A/μs,V_R=50V	125		1100		μC
tq	Circuit commutated turn-off time	I_{TM}=2000A,tp=4000μs,V_R=50V dv/dt=30V/μs ,di/dt=-20A/μs	125	30		60	μs
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	Double side cooled Clamping force 60kN				0.0085	°C/W
$R_{th(c-h)}$	Thermal resistance case to heat sink					0.0020	
F_m	Mounting force			50		70	kN
T_{vj}	Junction temperature			-40		125	°C
T_{stg}	Stored temperature			-40		140	°C
W_t	Weight				1100		g
Outline	KT73cT						

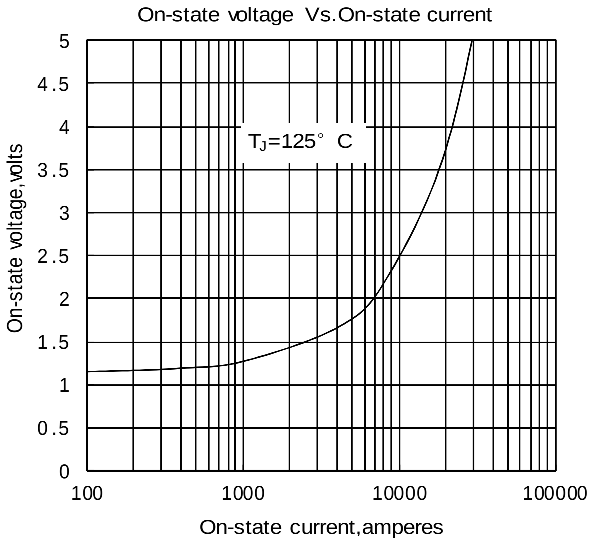

Fig.1

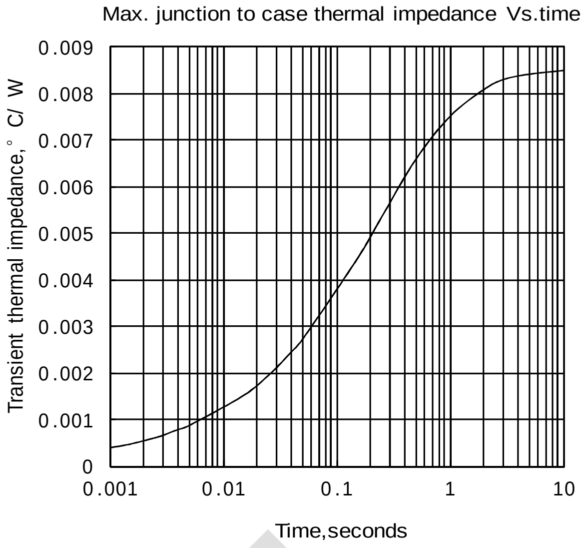

Fig.2

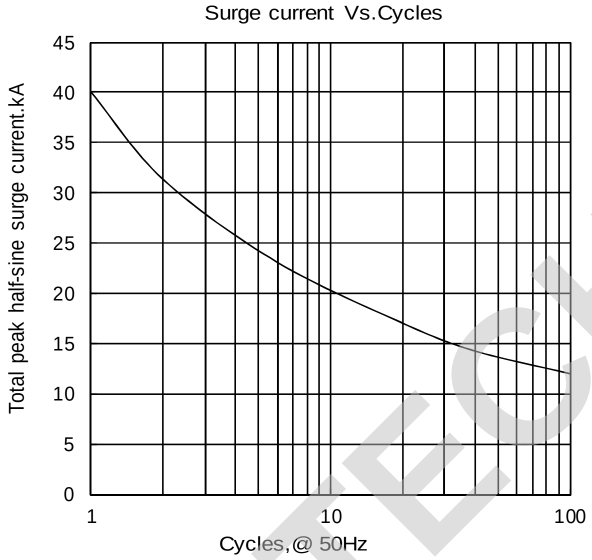

Fig.3

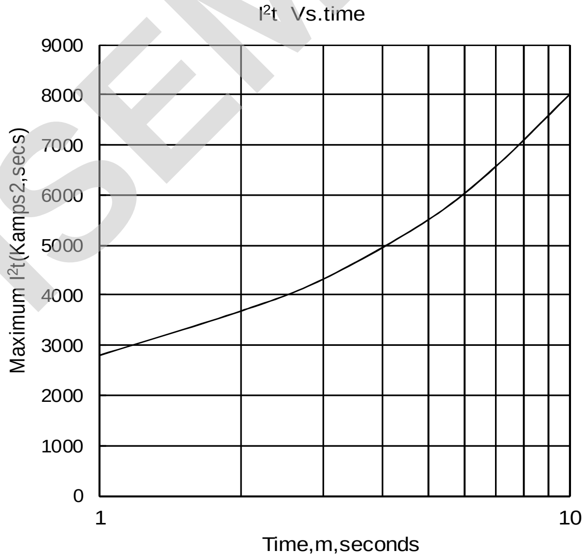

Fig.4

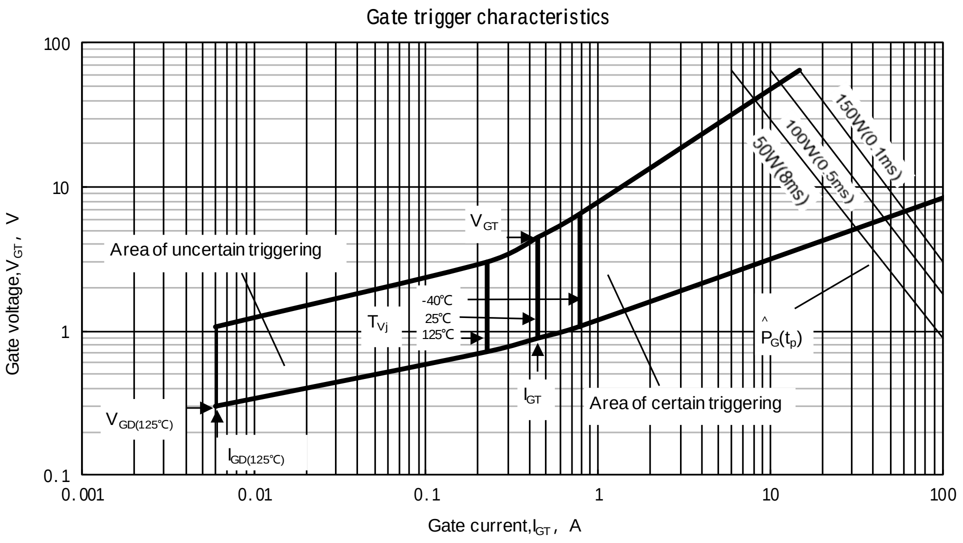

Fig.5

Outline: