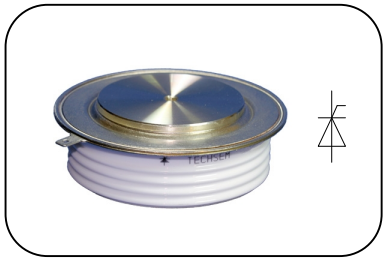

Features

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

Typical Applications

- **n** Inductive heating
- **n** Electronic welders
- **n** Self-commutated inverters

Part No. Y60KKG-KT54cT

$I_{T(AV)}$	**1500A**
V_{DRM},V_{RRM}	**2000V 2200V 2500V**
t_q	**25~70μs**

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			1500	A
V_{DRM}/ V_{RRM}	Repetitive peak off-state voltage	tp=10ms	125	2000		2500	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			120	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=0.6V_{RRM}	125			16	kA
I^2t	I^2t for fusing coordination					1280	10^3A^2s
V_{TO}	Threshold voltage		125			1.80	V
r_T	On-state slope resistance					0.25	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=3000A, F=28kN	25			2.80	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}=67%V_{DRM} Gate pulse t_r ≤0.5μs I_{GM}=1.5A	125			1200	A/μs
Q_{rr}	Recovery charge	I_{TM}=1000A, tp=4000μs, di/dt=-20A/μs, V_R=100V	125		600		μC
tq	Circuit commutated turn-off time	I_{TM}=1000A, tp=4000μs, V_R=100V dv/dt=30V/μs ,di/dt=-20A/μs	125	25		70	μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	40		250	mA
V_{GT}	Gate trigger voltage			0.9		2.5	V
I_H	Holding current			20		500	mA
I_L	Latching current					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 180^0 sine double side cooled Clamping force 28.0kN				0.016	°C /W
$R_{th(c-h)}$	Thermal resistance case to heat sink					0.004	
F_m	Mounting force			27		34	kN
T_{vj}	Junction temperature			-40		125	°C
T_{stg}	Stored temperature			-40		140	°C
W_t	Weight				640		g
Outline	KT54cT						

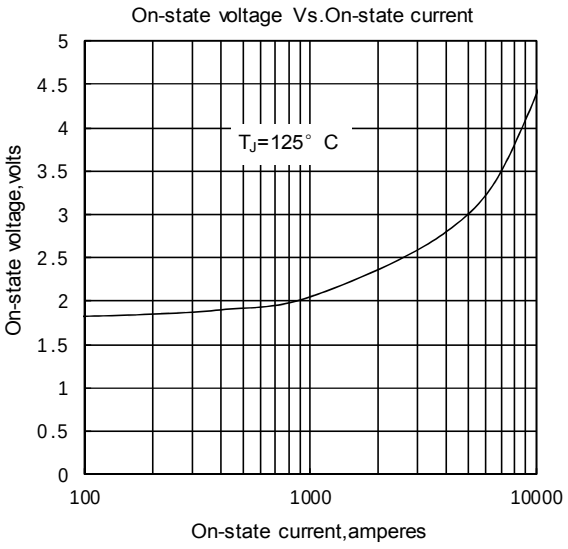

Fig.1

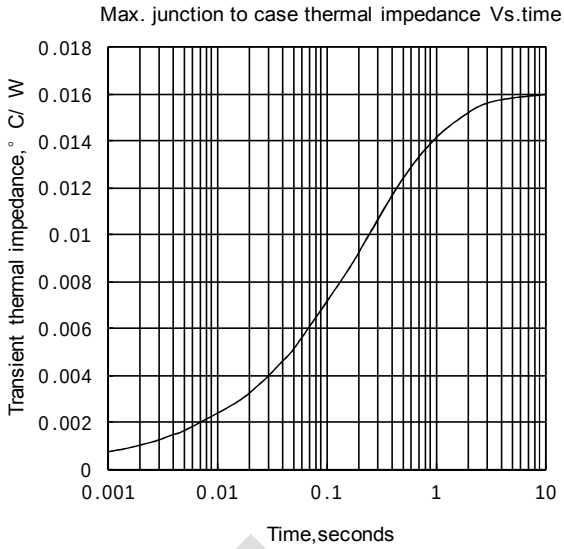

Fig.2

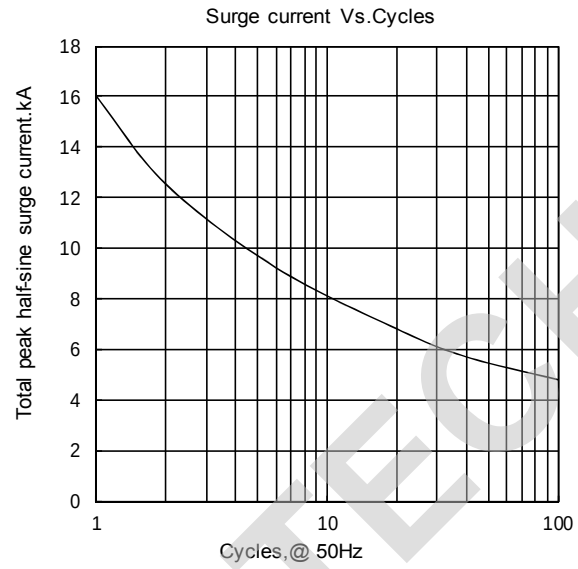

Fig.3

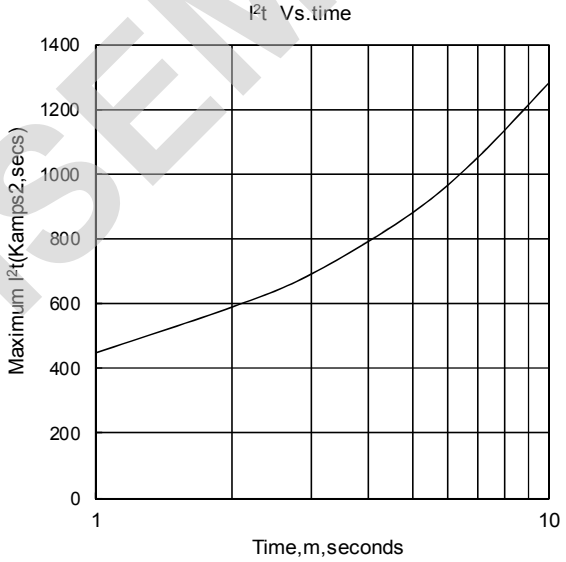

Fig.4

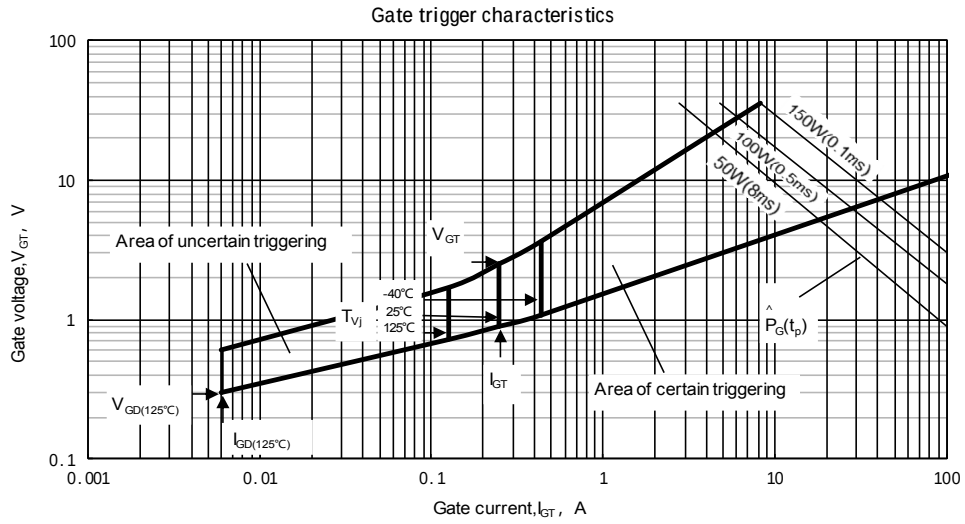

Fig.5

Outline: