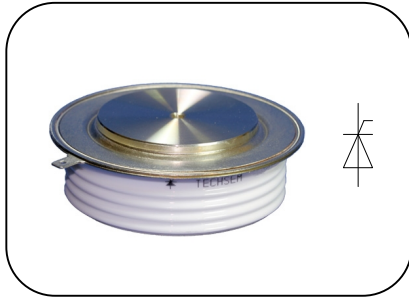


**Features**

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

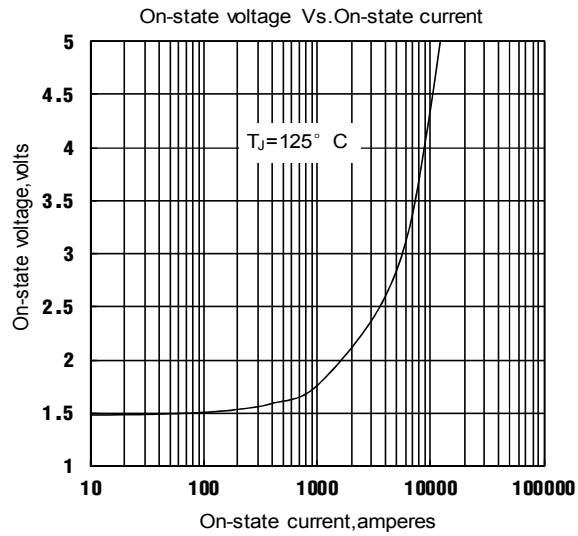
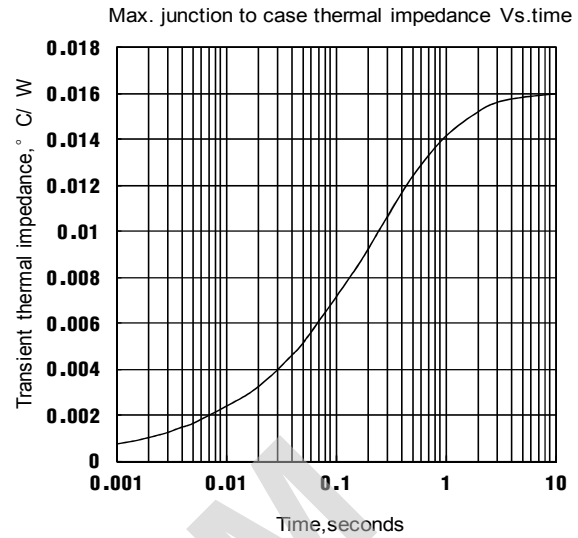
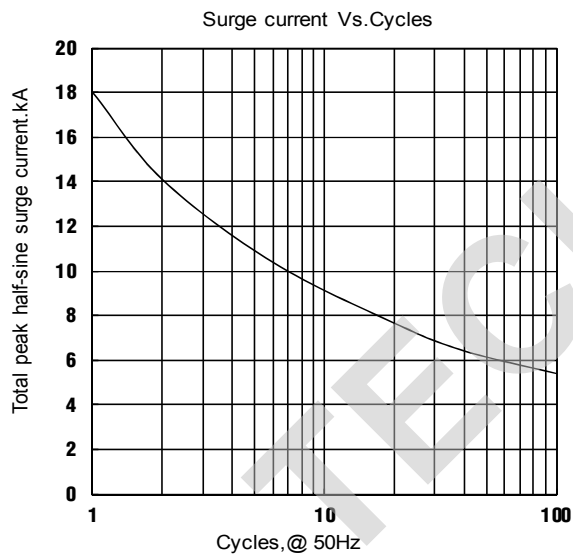
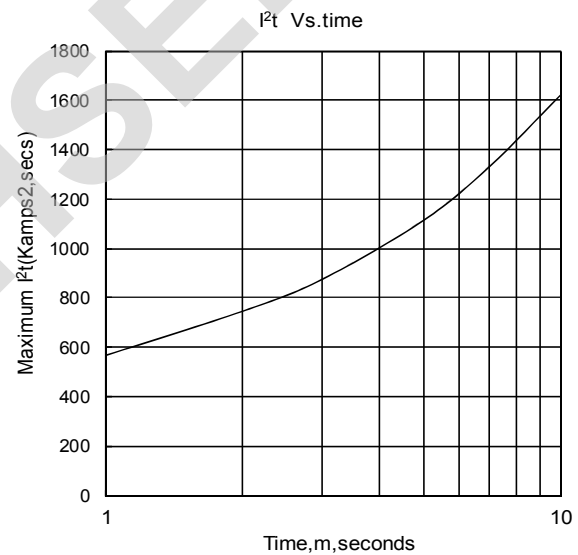
Typical Applications

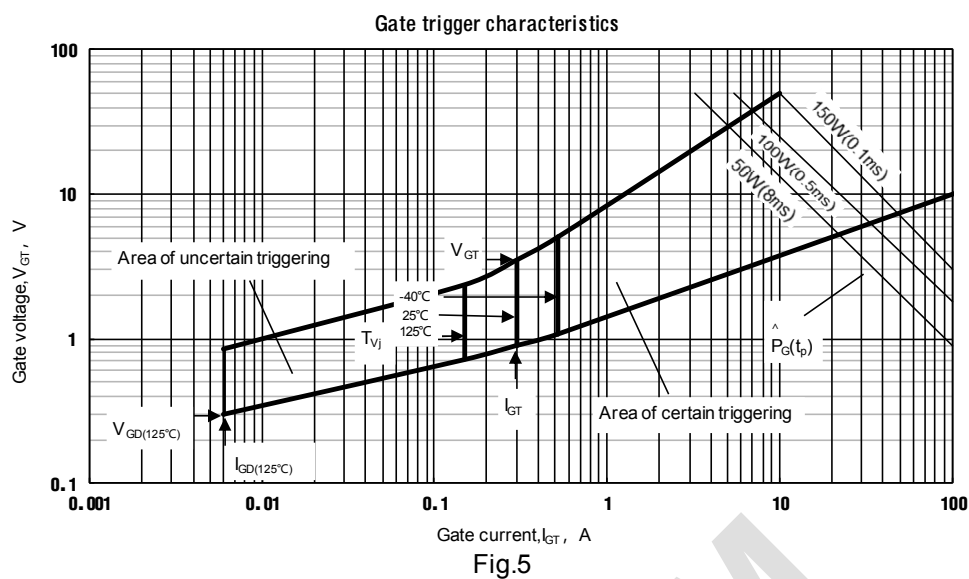
Inductive heating
Electronic welders
Self-commutated inverters

Part No. Y60KKE-KT54cT

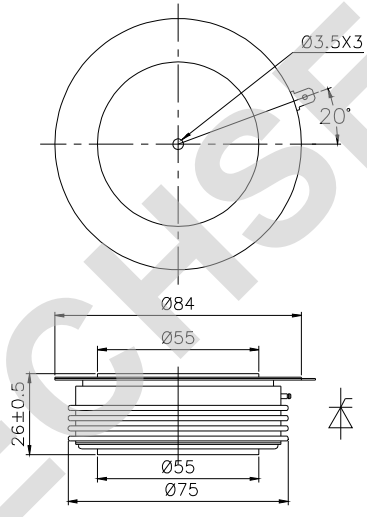
$I_{T(AV)}$	1750A	
V_{DRM}, V_{RRM}	800V	1000V
	1200V	1400V
	1600V	1800V
t_q	18~50μs	

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,	$T_C=55^\circ\text{C}$	125			1750	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	$t_p=10\text{ms}$		125	800		1800	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		125			18	kA
I^2t	I^2t for fusing coordination	$V_R=0.6V_{RRM}$					1620	$\text{A}^2\text{s}\cdot 10^3$
V_{TO}	Threshold voltage			125			1.48	V
r_T	On-state slope resistance						0.28	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=3000\text{A}$, $F=28\text{kN}$		25			3.15	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	$V_{DM}=67\%V_{DRM}$ to 2500A, Gate pulse $t_r \leq 0.5\mu\text{s}$ $I_{GM}=1.5\text{A}$ Single pulse		125			1200	A/μs
Q_{rr}	Recovery charge	$I_{TM}=1000\text{A}$, $t_p=4000\mu\text{s}$, $di/dt=-20\text{A}/\mu\text{s}$, $V_R=100\text{V}$		125		800		μC
t_q	Circuit commutated turn-off time	$I_{TM}=1000\text{A}$, $t_p=4000\mu\text{s}$, $V_R=100\text{V}$ $dv/dt=30\text{V}/\mu\text{s}$, $di/dt=-20\text{A}/\mu\text{s}$		125	18		50	μs
I_{GT}	Gate trigger current	$V_A=12\text{V}$, $I_A=1\text{A}$		25	40		300	mA
V_{GT}	Gate trigger voltage				0.9		3.5	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° sine double side cooled Clamping force 28kN					0.016	C /W
$R_{th(c-h)}$	Thermal resistance case to heat sink						0.004	
F_m	Mounting force				21		30	kN
T_{vj}	Junction temperature				-40		125	°C
T_{stg}	Stored temperature				-40		140	°C
W_t	Weight					650		g
Outline	KT54cT							

**Fig.1****Fig.2****Fig.3****Fig.4**



Outline:



TECHSEM reserves the right to change specifications without notice.