**Features**

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

Typical Applications

- Design for inverter supply application

Part No. Y76KFE-KT73c(d)T

$I_{T(AV)}$	3415A
V_{DRM}	800V~2000V
V_{RRM}	1000V~1800V
t_q	15~75μs

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,	$T_C=55^{\circ}C$ $T_C=70^{\circ}C$	125			3415 2870	A
V_{DRM}	Repetitive peak off-state voltag	$t_p=10ms$		125	800		2000	V
V_{RRM}	Repetitive peak reverse voltage				1000		1800	
I_{DRM} I_{RRM}	Repetitive peak current	$V_D = V_{DRM}$ $V_R = V_{RRM}$		125			200	mA
I_{TSM}	Surge on-state current	10ms half sine wave		125			35.6	kA
I^2t	I^2t for fusing coordination	$V_R=0.6V_{RRM}$					6337	$A^2s \cdot 10^3$
V_{TO}	Threshold voltage			125			1.21	V
r_T	On-state slop resistance						0.10	m Ω
V_{TM}	Peak on-state voltage	$I_{TM}=4000A, F=40kN$	$15 \leq t_q \leq 35$	25			2.20	V
			$36 \leq t_q \leq 50$				2.00	V
			$51 \leq t_q \leq 75$				1.80	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=0.67V_{DRM}$		125			1000	V/ μ s
di/dt	Critical rate of rise of on-state current	$V_{DM}=67\%V_{DRM}$ to 3000A Gate pulse $t_r \leq 0.5\mu s$ $I_{GM}=1.5A$		125			1500	A/ μ s
Q_{rr}	Recovery charge	$I_{TM}=2000A, t_p=4000\mu s,$ $di/dt=-20A/\mu s, V_R=100V$		125		1300		μC
t_q	Circuit commutated turn-off time	$I_{TM}=2000A, t_p=4000\mu s, V_R=100V$ $dv/dt=30V/\mu s, di/dt=-20A/\mu s$		100	15		75	μs
I_{GT}	Gate trigger current	$V_A=12V, I_A=1A$		25	45		300	mA
V_{GT}	Gate trigger voltage				0.9		4.5	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 40kN					0.010	$^{\circ}C/W$
$R_{th(c-h)}$	Thermal resistance case to heat sink						0.003	
F_m	Mounting force				35		47	kN
T_{vj}	Junction temperature				-40		125	$^{\circ}C$
T_{stg}	Stored temperature				-40		140	$^{\circ}C$
W_t	Weight					1100/ 1460		g
Outline	KT73cT/ KT73dT							

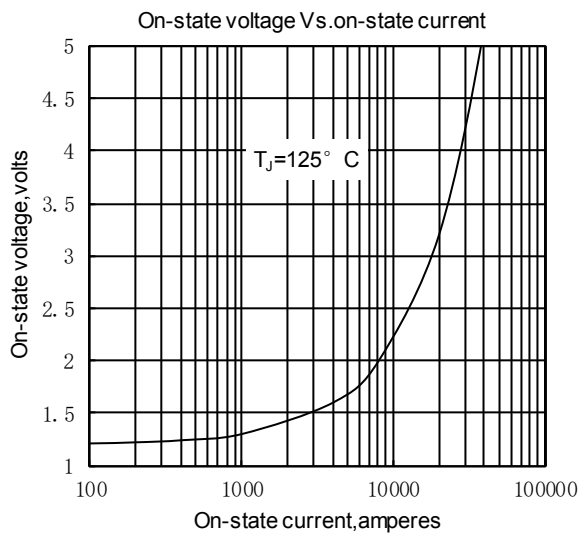


Fig.1

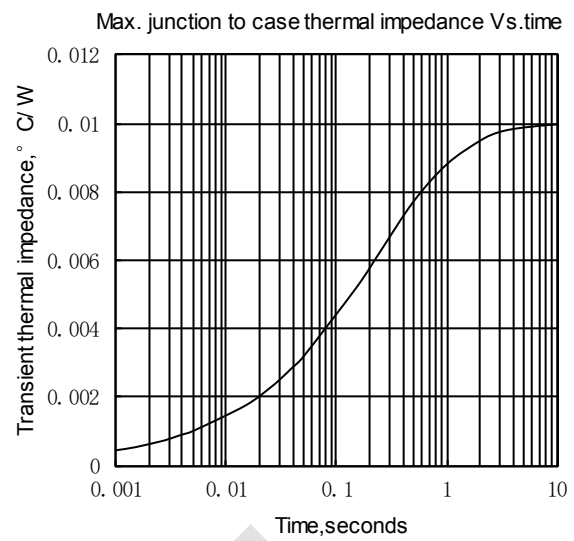


Fig.2

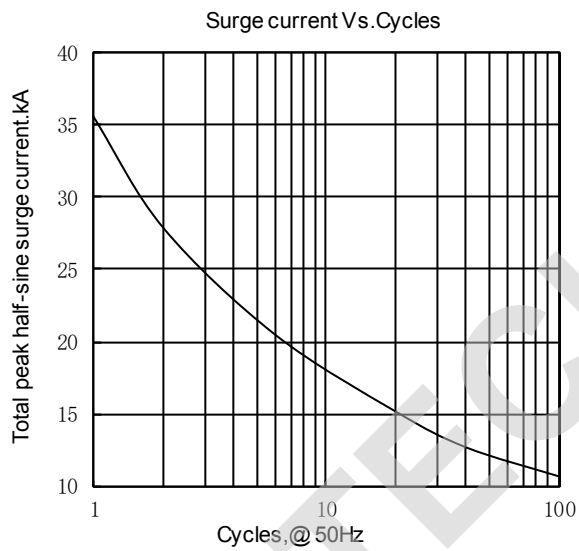


Fig.3

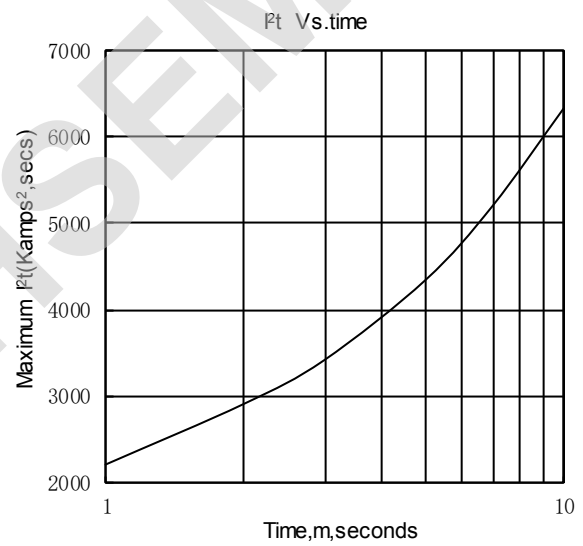


Fig.4

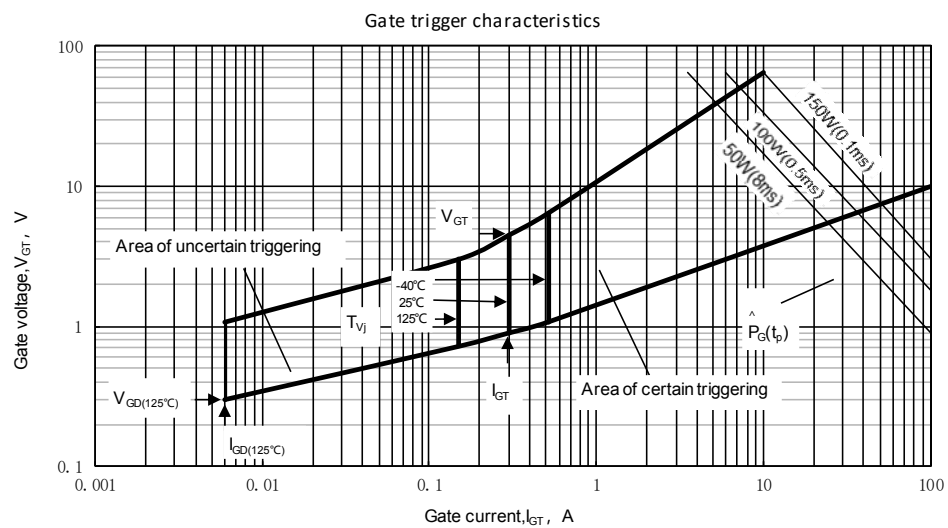
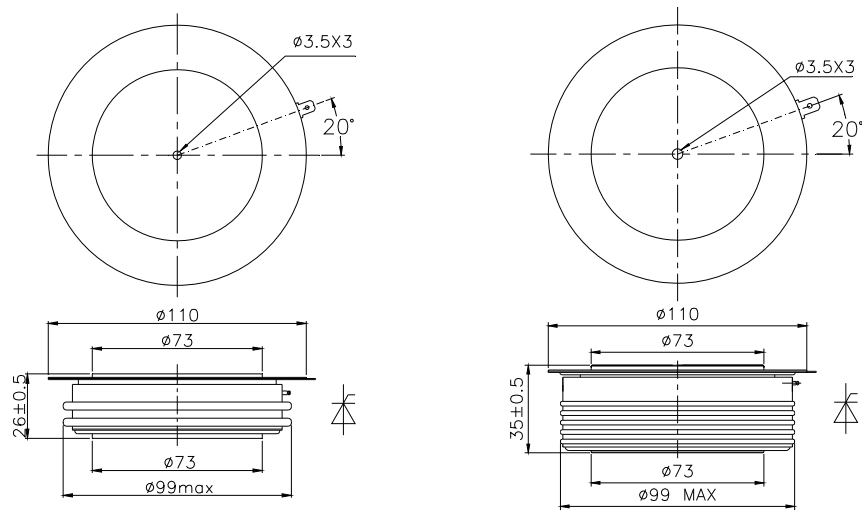


Fig.5

Outline:



TECHSEM reserves the right to change specifications without notice.