



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 (°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 T _c =70°C	125			3415 2870	A	
V _{DRM}	Repetitive peak off-state voltag	tp=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 ² t	I ² t for fusing coordination	V _R =0.6V _{RRM}					6337	A ² s*10 ³
V _{TO}	Threshold voltage		125			1.21	V	
r _T	On-state slop resistance						0.10	mΩ
V _{TM}	Peak on-state voltage	I _{TM} =4000A, F=40kN	25			2.20	V	
				15≤t _q ≤35			2.00	V
				36≤t _q ≤50			1.80	V
	51≤t _q ≤75							
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} to3000A Gate pulse t _r ≤0.5μs I _{GM} =1.5A	125			1500	A/μs	
Q _{rr}	Recovery charge	I _{TM} =2000A, tp=4000μs, di/dt=-20A/μs, V _R =100V	125		1300		μC	
t _q	Circuit commutated turn-off time	I _{TM} =2000A, tp=4000μs, V _R =100V dv/dt=30V/μs , di/dt=-20A/μs	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	°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	°C	
T _{stg}	Stored temperature			-40		140	°C	
W _t	Weight					1100/ 1460	g	
Outline	KT73cT/ KT73dT							

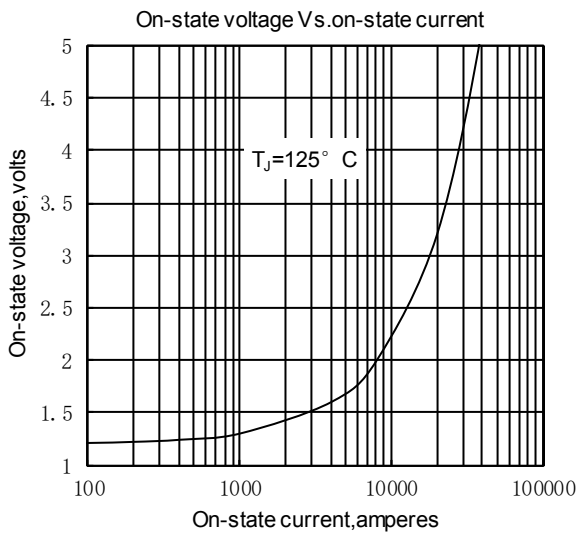


Fig.1

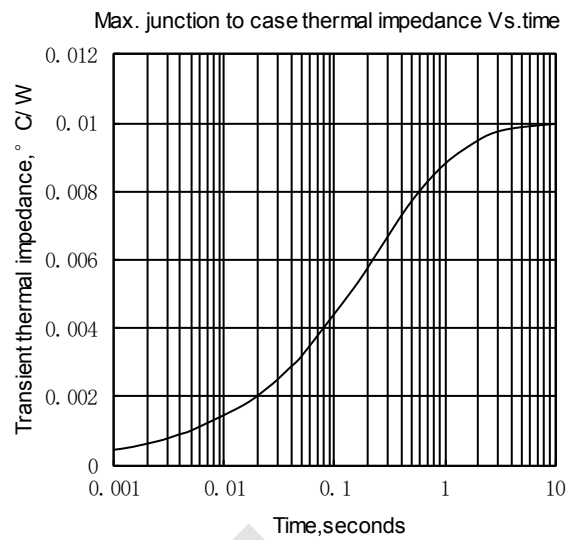


Fig.2

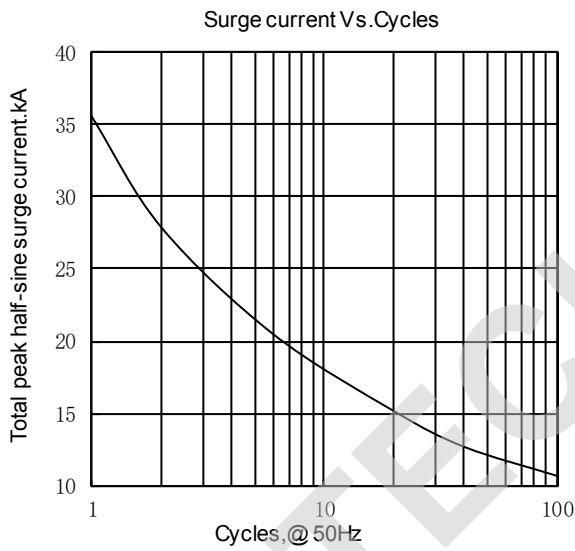


Fig.3

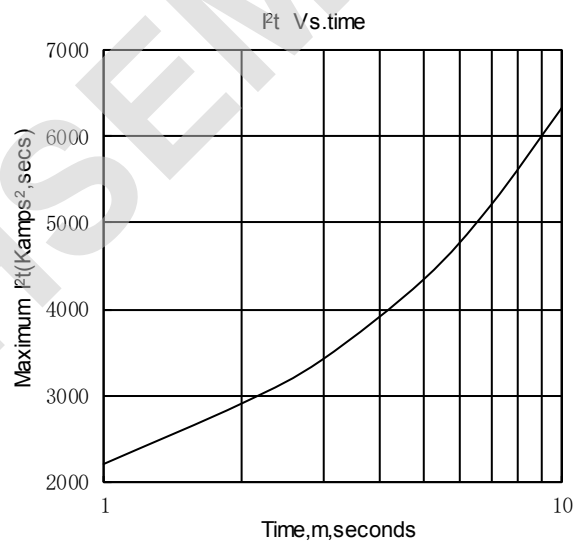


Fig.4

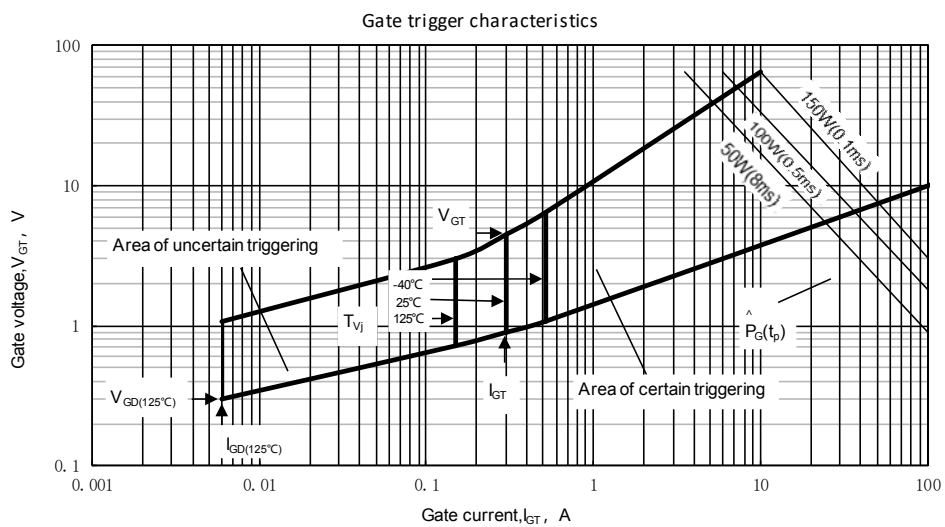
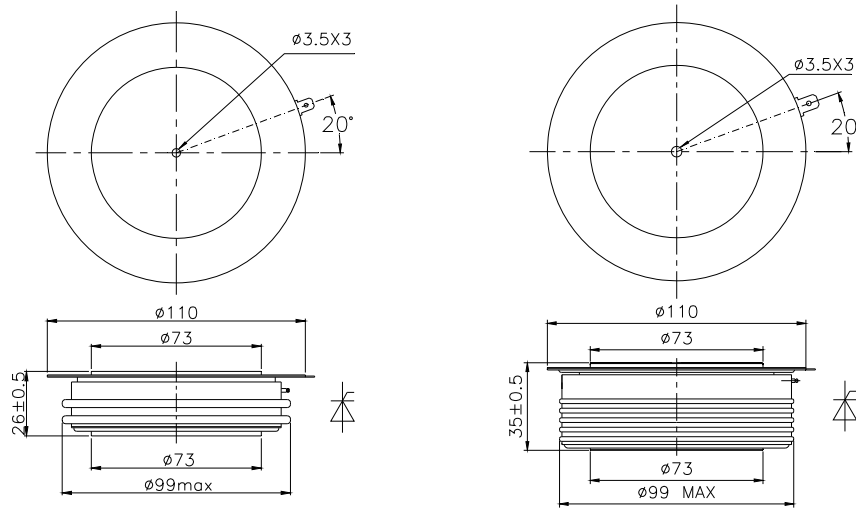


Fig.5

Outline:



TECHSEM reserves the right to change specifications without notice.

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