



Features

- n Center amplifying gate
- n Metal case with ceramic insulator
- n Low on-state and switching losses

Typical Applications

- n AC controllers
- n DC and AC motor control
- n Controlled rectifiers

Part No. Y35KPE-KT33cT			
I_{T(AV)}	730A		
V_{DRM}, V_{RRM}	1200V	1400V	1800V
	1600V	1800V	

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 =70°C	125			730	A	
V _{DRM} V _{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms	125	1100		1800	V	
I _{DRM} I _{RRM}	Repetitive peak current	at V _{DRM} at V _{RRM}	125			40	mA	
I _{SM}	Surge on-state current	10ms half sine wave, V _R =0.6V _{RRM}	125			9	kA	
I ² t	I ² t for fusing coordination					405	A ² s*10 ³	
V _{TO}	Threshold voltage		125			0.88	V	
r _r	On-state slope resistance					0.65	mΩ	
V _{TM}	Peak on-state voltage	I _{TM} =1200A, F=15.0kN	25			2.00	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 800A, Gate pulse t _r ≤0.5μs I _{GM} =1.5A Repetitive	125			150	A/μs	
Q _{rr}	Recovery charge	I _{TM} =1000A, tp=4000μs, di/dt=-20A/μs, V _R =100V	125		1000		μC	
I _{GT}	Gate trigger current	V _A =12V, I _A =1A	25			35	mA	
V _{GT}	Gate trigger voltage					0.8	2.5	V
I _H	Holding current					20	200	mA
I _L	Latching current						500	mA
V _{GD}	Non-trigger gate voltage	V _{DM} =0.67V _{DRM}	125			0.3	V	
R _{th(j-c)}	Thermal resistance Junction to case	sine double side cooled Clamping force 15kN				0.035	°C/W	
R _{th(c-h)}	Thermal resistance case to heat sink					0.008		
F _m	Mounting force			10		20	kN	
T _{vj}	Junction temperature			-40		125	°C	
T _{stg}	Stored temperature			-40		140	°C	
W _t	Weight					240	g	
Outline	KT33cT							

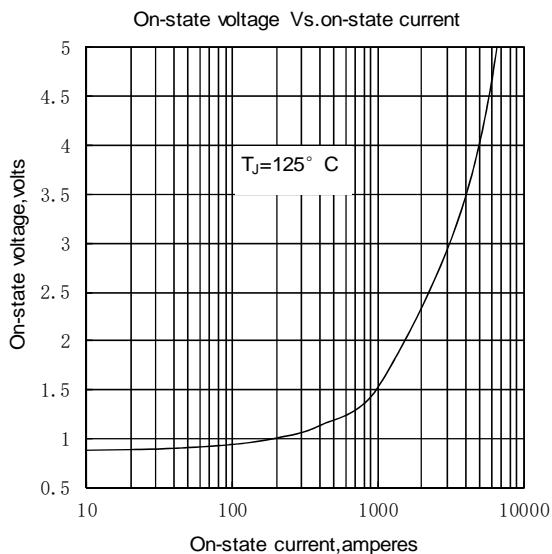


Fig.1

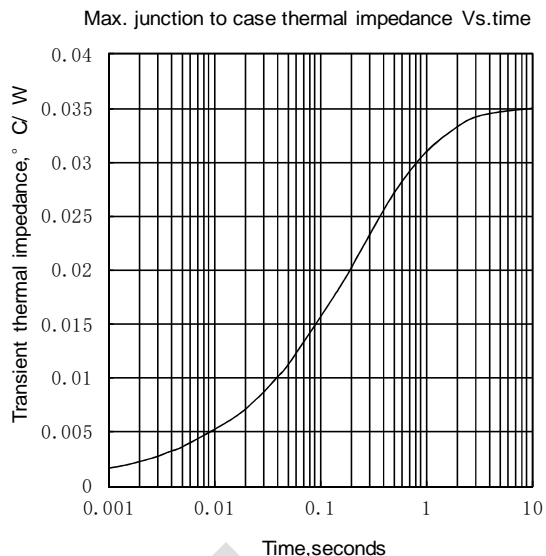


Fig.2

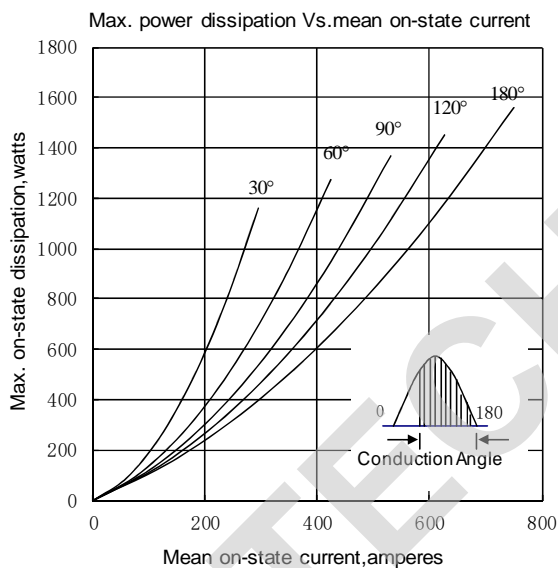


Fig.3

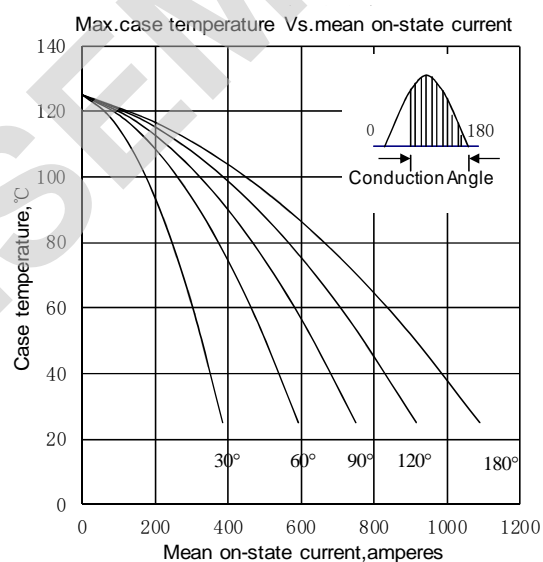


Fig.4

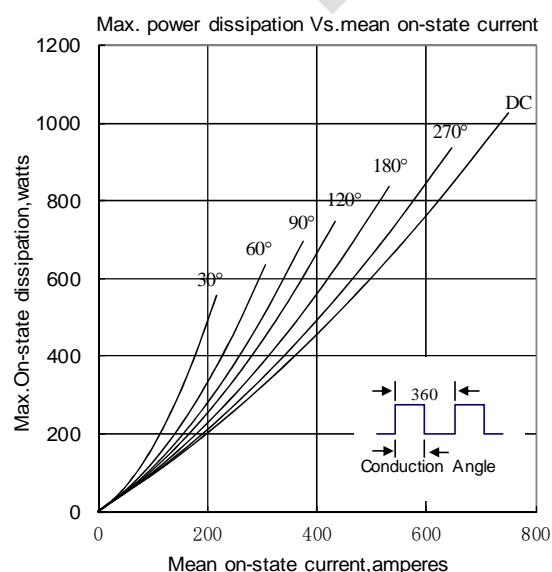


Fig.5

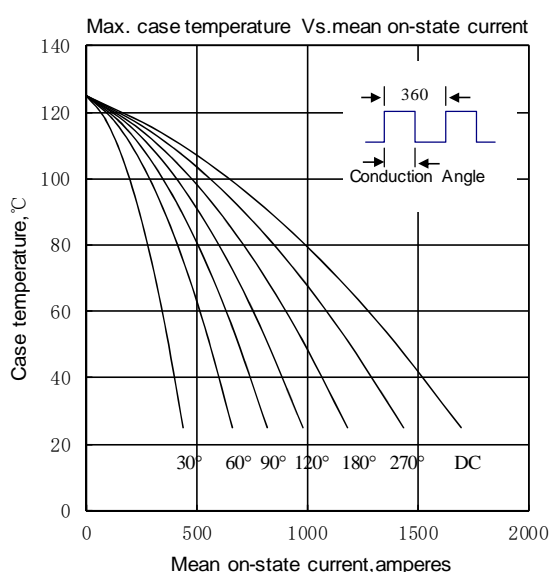


Fig.6

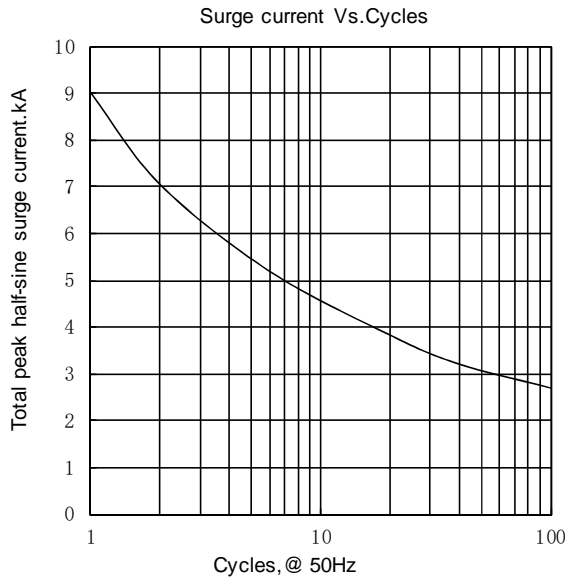


Fig.7

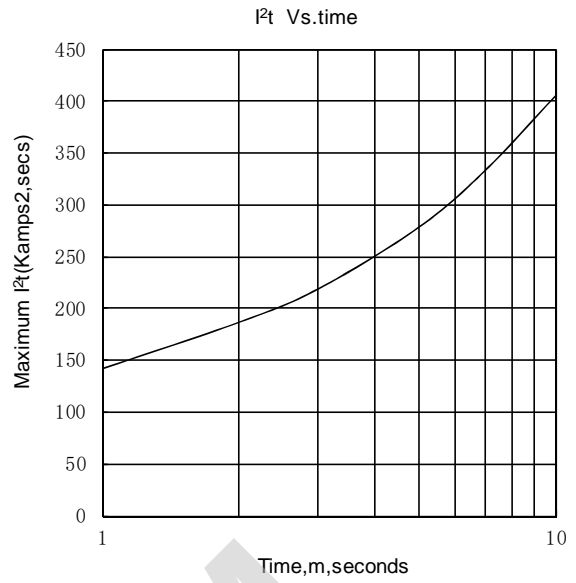


Fig.8

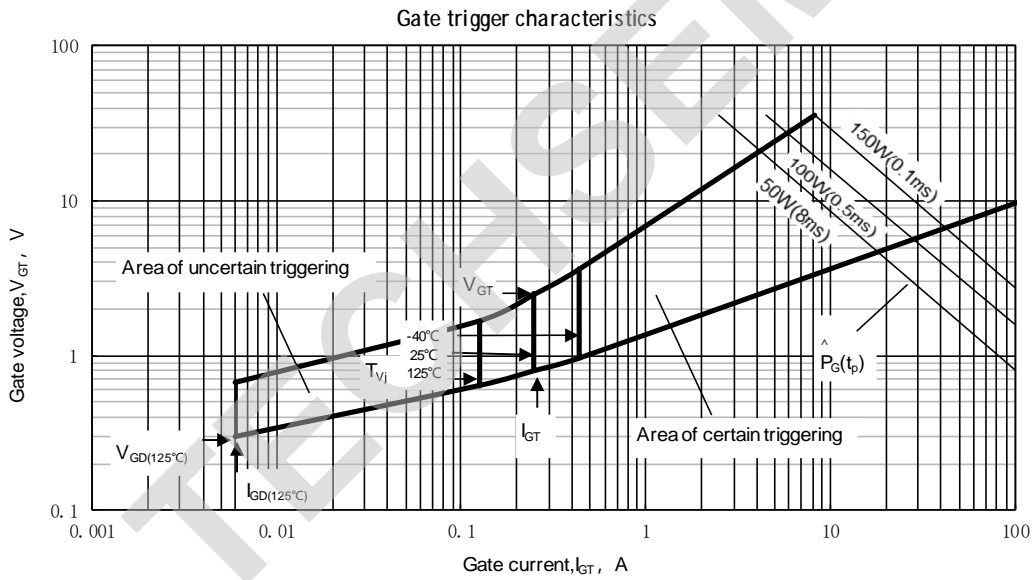
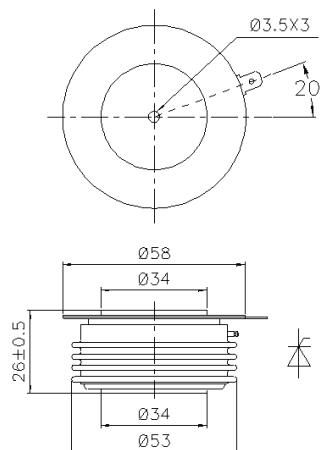


Fig.9

Outline:



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