

Features

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

Typical Applications

- Inductive heating
- Electronic welders
- Self-commutated inverters

$I_{T(AV)}$	1220A
V_{DRM}/V_{RRM}	800~1800V
t_q	18~50μs
I_{TSM}	12 kA
I^2t	720 10³A²S



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			1220	A
			T _C =85°C				820	
V _{DRM} V _{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V _{DRM} &V _{RRM} ,tp=10ms V _{DSM} &V _{RSM} = V _{DRM} &V _{RRM} +100V	125	800		1800	V	
I _{DRM} I _{RRM}	Repetitive peak current	V _D = V _{DRM} V _R = V _{RRM}	125			60	mA	
I _{TSM}	Surge on-state current	10ms half sine wave	125			12	kA	
I ² t	I ² T for fusing coordination	V _R =0.6V _{RRM}				720	A ² s*10 ³	
V _{TO}	Threshold voltage		125			1.32	V	
r _T	On-state slop resistance					0.36	mΩ	
V _{TM}	Peak on-state voltage	I _{TM} =2400A, F=21kN	125			2.18	V	
dv/dt	Critical rate of rise of off-state voltage	V _{DM} =0.67V _{DRM}	125			500	V/μs	
di/dt	Critical rate of rise of on-state current	V _{DM} = 67%V _{DRM} to 1600A, Gate pulse t _r ≤0.5μs I _{GM} =1.5A	125			1200	A/μs	
Q _{rr}	Recovery charge	I _{TM} =1000A, tp=2000μs, di/dt=-60A/μs, V _R =50V	125		650		μC	
t _q	Circuit commutated turn-off time	I _{TM} =1000A, tp=1000μs, V _R =50V dv/dt=30V/μs , di/dt=-20A/μs	125	18		50	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		400	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 21kN				0.024	°C /W	
R _{th(c-h)}	Thermal resistance case to heat sink					0.006		
F _m	Mounting force			18		25	kN	
T _{stg}	Stored temperature			-40		140	°C	
W _t	Weight					380	g	
Outline	KT44cT							

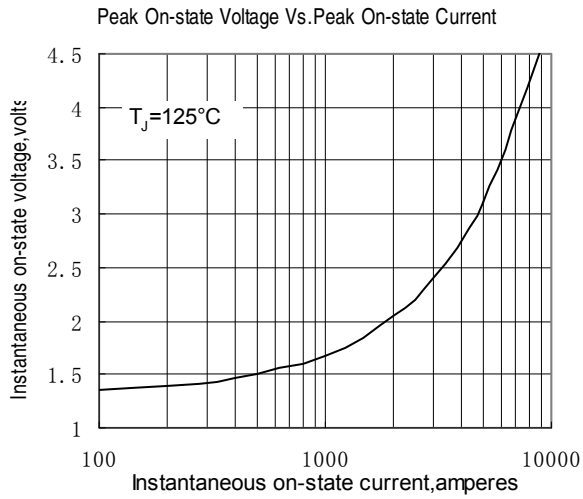


Fig.1

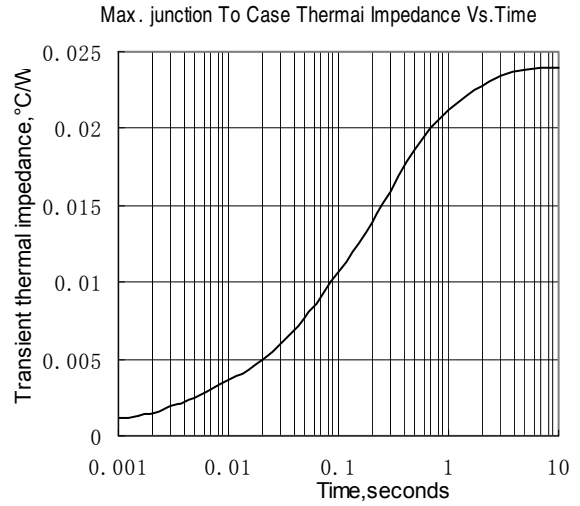


Fig.2

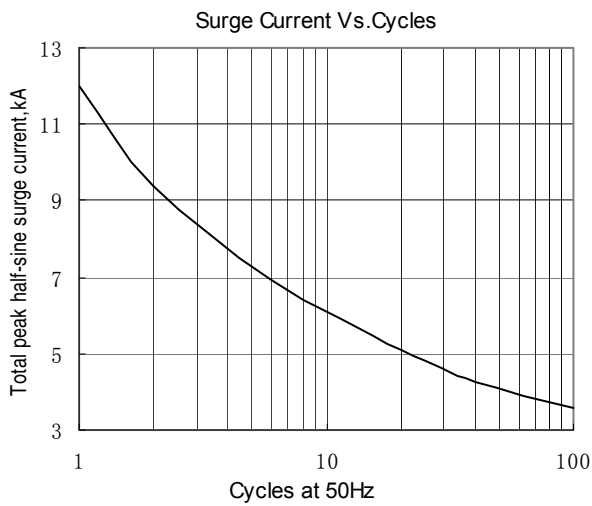


Fig.3

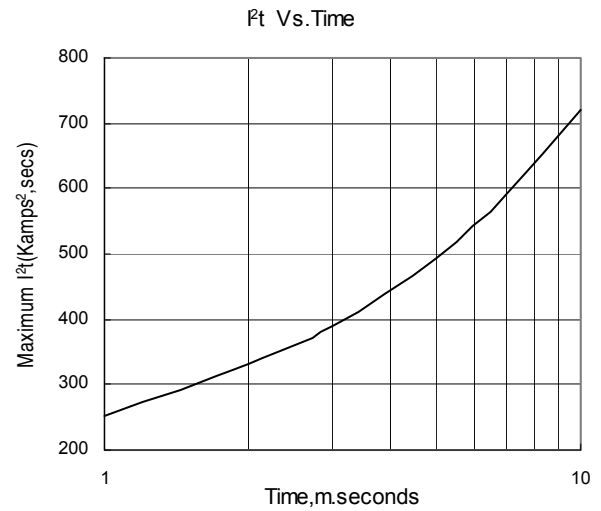


Fig.4

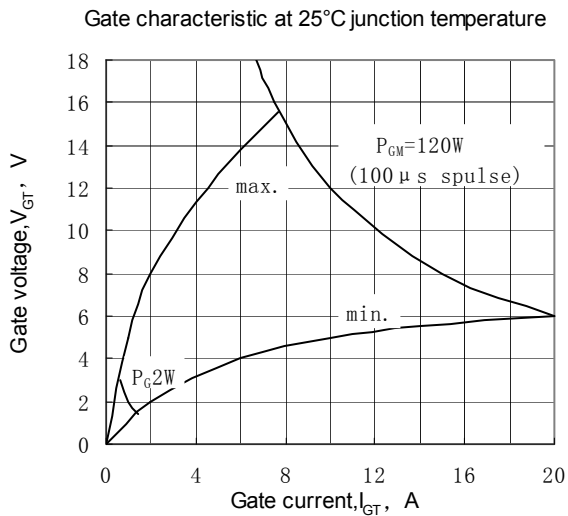


Fig.5

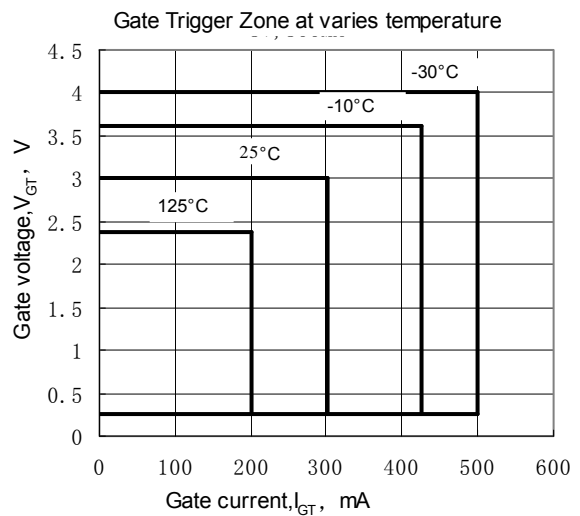


Fig.6

Outline:

