

Features

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

Typical Applications

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

$I_{T(AV)}$	920A
V_{DRM}/V_{RRM}	400~1000V
I_{TSM}	11 kA
I^2t	605 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			1080	A
			T _C =70°C				920	
V _{DRM} V _{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V _{DRM} &V _{RRM} tp=10ms V _{D_{SM}} &V _{R_{SM}} = V _{DRM} &V _{RRM} +100V	125	400		1000	V	
I _{DRM} I _{RRM}	Repetitive peak current	V _{DM} = V _{DRM} V _{RM} = V _{RRM}	125			40	mA	
I _{TSM}	Surge on-state current	10ms half sine wave	125			11.0	kA	
I ² t	I ² T for fusing coordination	V _R =0.6V _{RRM}				605	A ² s*10 ³	
V _{TO}	Threshold voltage		125			0.80	V	
r _T	On-state slop resistance					0.40	mΩ	
V _{TM}	Peak on-state voltage	I _{TM} =1500A, F=15kN	125			1.80	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 1300A, Gate pulse t _r ≤0.5μs I _{GM} =1.5A	125			100	A/μs	
Q _{rr}	Recovery charge	I _{TM} =1000A, tp=2000μs, di/dt=-20A/μs, V _R =50V	125		1100		μC	
I _{GT}	Gate trigger current	V _A =12V, I _A =1A	25	35		250	mA	
V _{GT}	Gate trigger voltage			0.8		2.5	V	
I _H	Holding current			20		200	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 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 _{stg}	Stored temperature			-40		140	°C	
W _t	Weight				240		g	
Outline	KT33cT							

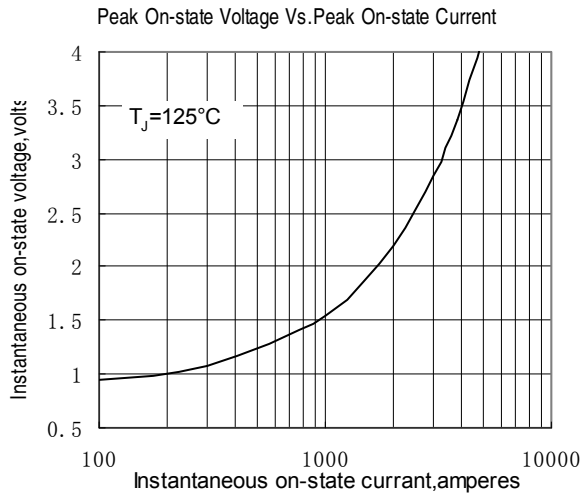


Fig.1

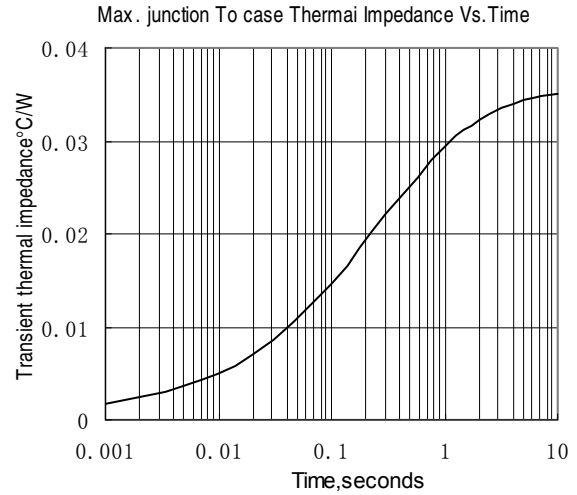


Fig.2

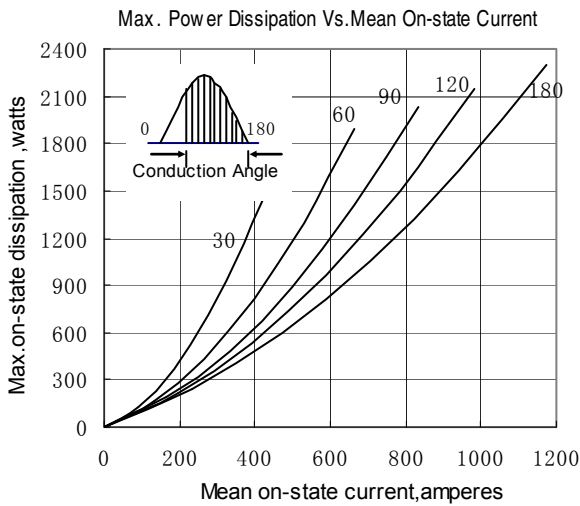


Fig.3

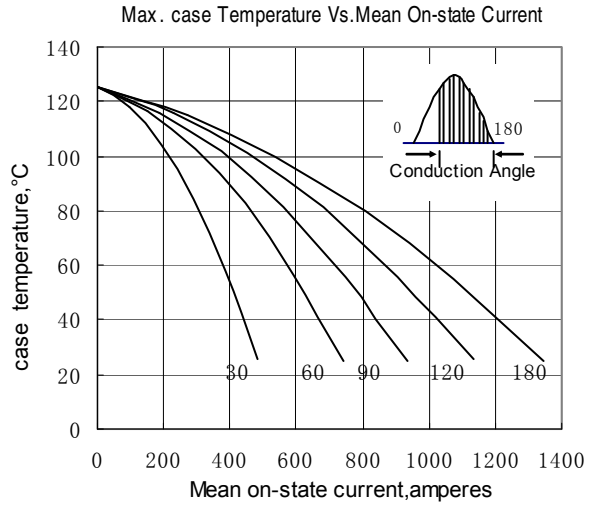


Fig.4

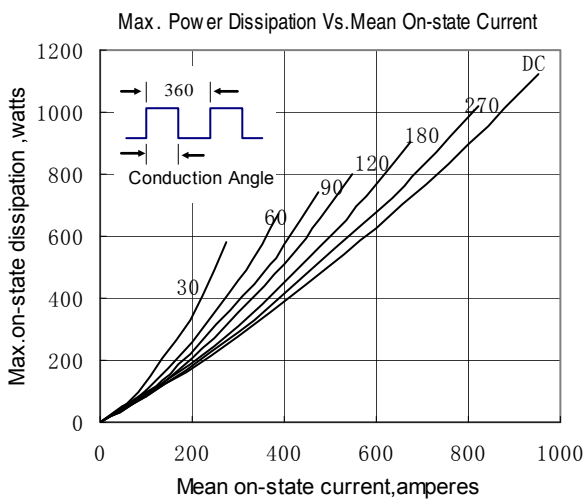


Fig.5

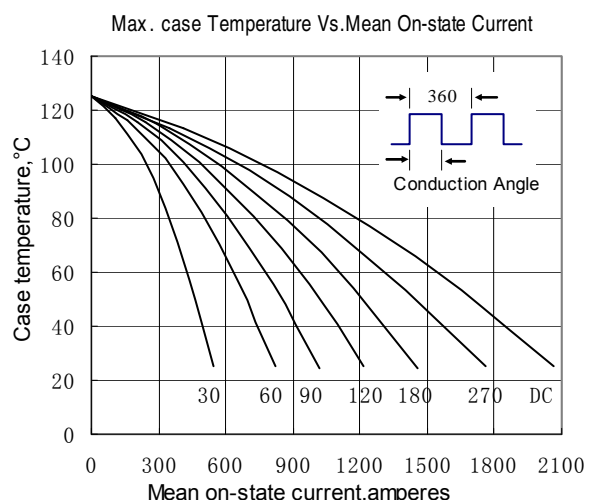


Fig.6

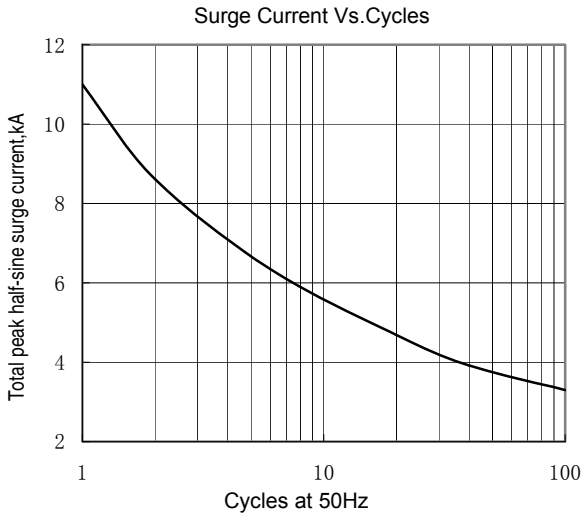


Fig.7

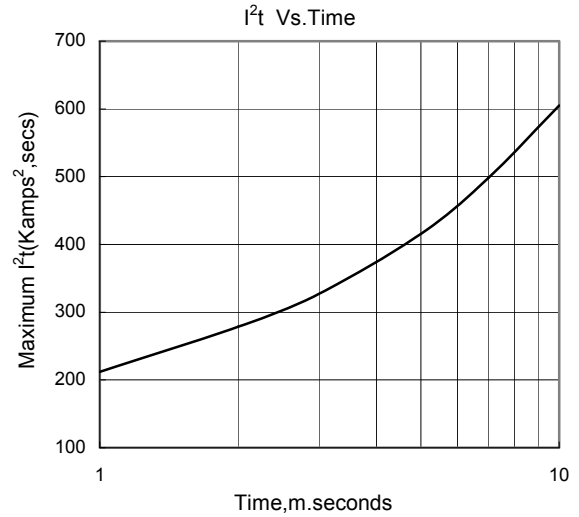


Fig.8

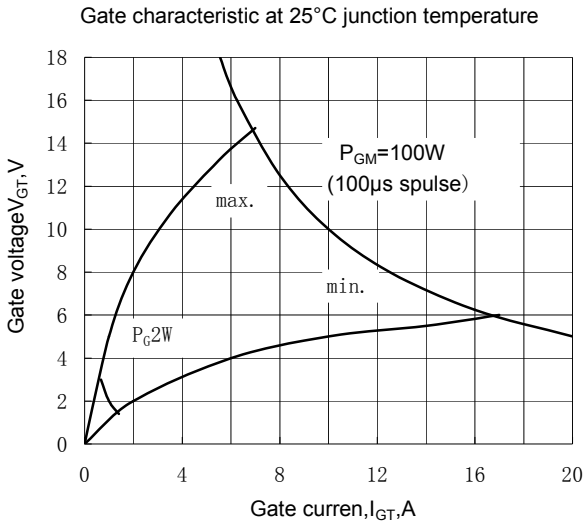


Fig.9

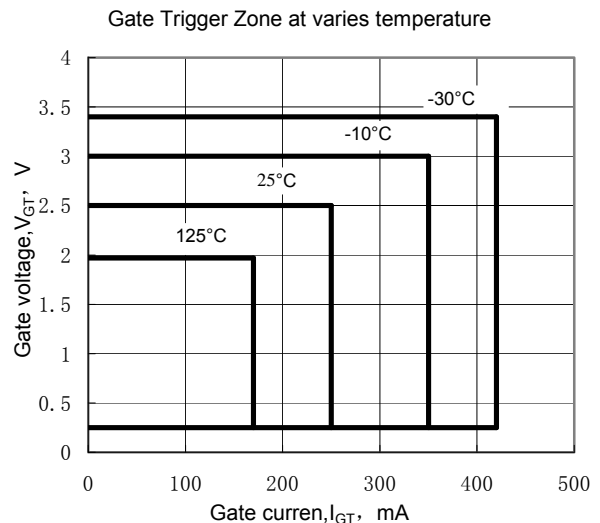


Fig.10

Outline:

