

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

$I_{T(AV)}$ **5010 A**
 V_{DRM}/V_{RRM} **4500-5500V**
 I_{TSM} **72 kA**
 I^2t **25920 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			5800	A
			T _C =70°C			5010	
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	4500		5500	V
I_{DRM} I_{RRM}	Repetitive peak current	V_{DM} = V_{DRM} V_{RM} = V_{RRM}	125			600	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			72	kA
I^2t	I ² T for fusing coordination	V_R =0.6V _{RRM}				25920	A ² s*10 ³
V_{TO}	Threshold voltage		125			1.02	V
r_T	On-state slop resistance					0.14	mΩ
V_{TM}	Peak on-state voltage	I_{TM} =3000A, F=120kN	125			1.50	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM} =0.67V _{DRM}	125			2000	V/μs
di/dt	Critical rate of rise of on-state current	V_{DM} = 67%V _{DRM} to 3000A, Gate pulse tr ≤0.5μs IGM= 1.5A	125			250	A/μs
Q_{rr}	Recovery charge	I_{TM} =2000A, tp=2000μs, di/dt=-5A/μs, V_R =50V	125		5500		μC
I_{GT}	Gate trigger current	VA=12V, IA=1A	25	40		300	mA
V_{GT}	Gate trigger voltage			0.8		3.0	V
I_H	Holding current			25		250	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 120.0kN				0.004	°C /W
$R_{th(c-hs)}$	Thermal resistance case to heatsink					0.001	°C /W
F_m	Mounting force			110	120	140	kN
T _{stg}	Stored temperature			-40		140	°C
W_t	Weight				3420		g
Outline	KT110dT						

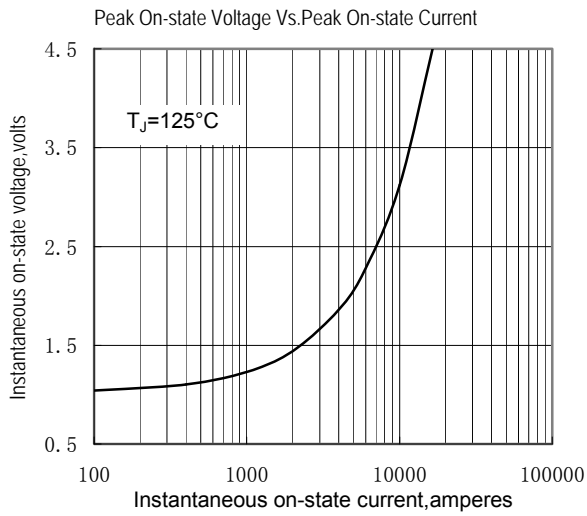


Fig.1

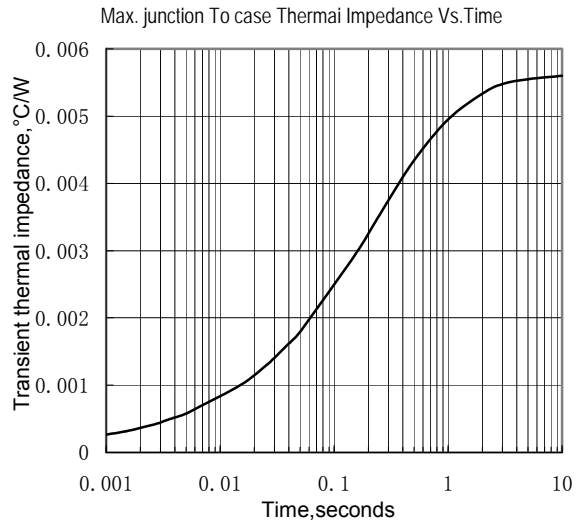


Fig.2

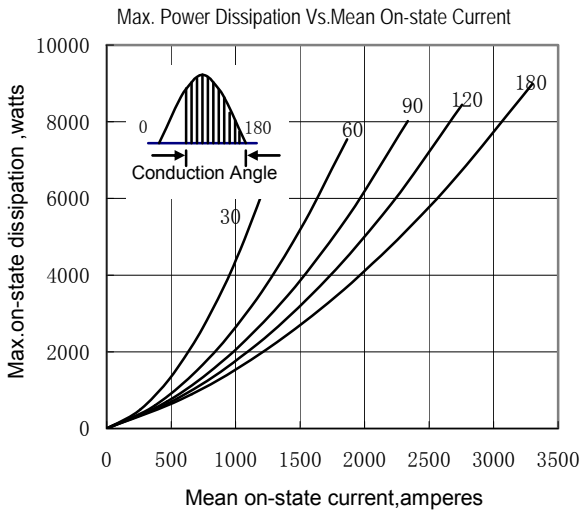


Fig.3

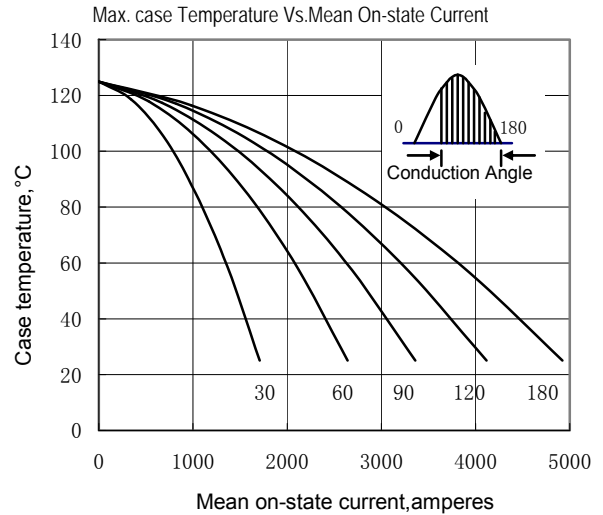


Fig.4

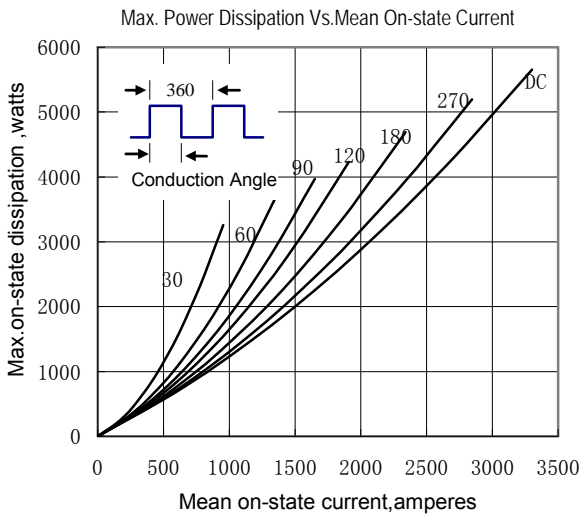


Fig.5

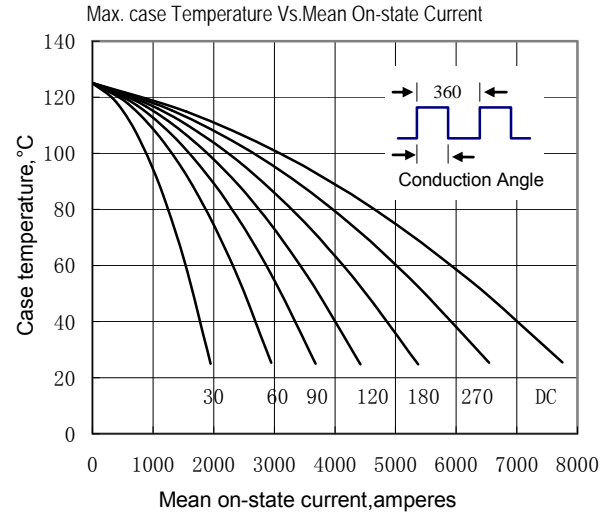


Fig.6

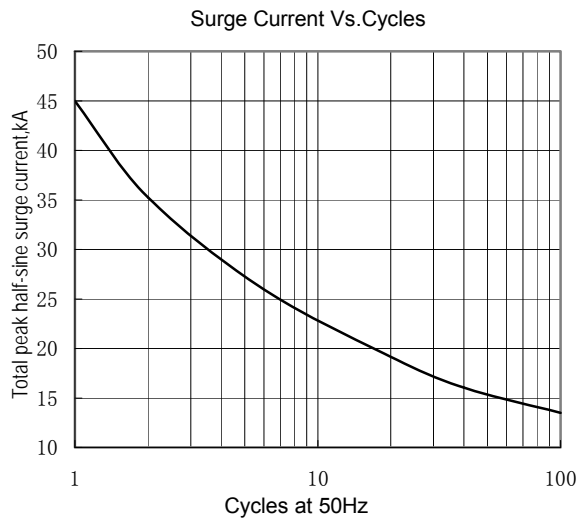


Fig.7

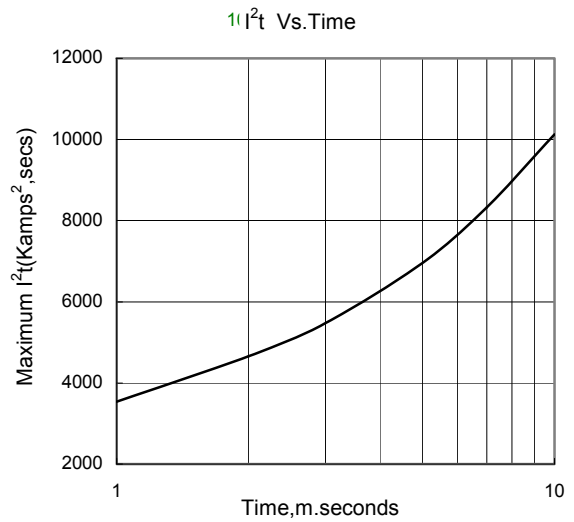


Fig.8

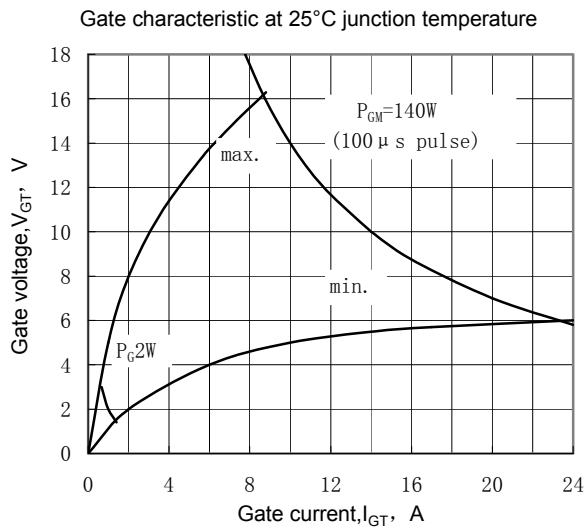


Fig.9

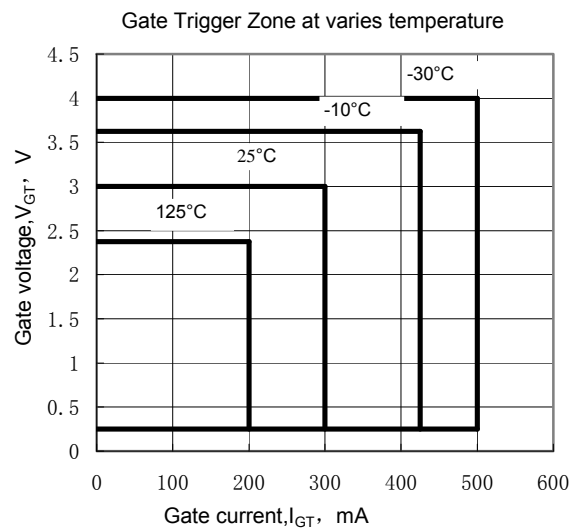


Fig.10

Outline:

