

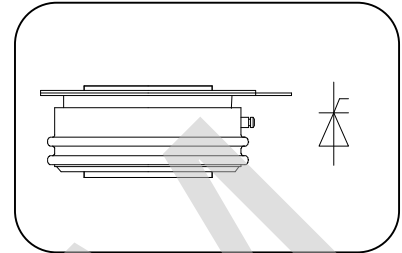
Features:

- 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

$I_{T(AV)}$	727A
V_{DRM}/V_{RRM}	1200~1600V
I_{TSM}	8.7 KA
I^2t	378 10³A²S



SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T _f (°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled, T _{hs} = 55°C	125			727	A
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	1200		1600	V
I_{DRM} I_{RRM}	Repetitive peak current	$V_R= V_{DRM}$ $V_R= V_{RRM}$	125			30	mA
I_{TSM}	Surge on-state current	10ms half sine wave $V_R=0.6V_{RRM}$	125			8.7	KA
I^2t	I ² T for fusing coordination					378	A ² s*10 ³
V_{TO}	Threshold voltage		125			1.03	V
r_T	On-state slop resistance					0.5	mW
V_{TM}	Peak on-state voltage	$I_{TM}=1500A, F=7.0KN$	125			1.78	V
dv/dt	Critical rate of rise of off-state voltage	$V_{DM}=0.67V_{DRM}$	125			300	V/μs
di/dt	Critical rate of rise of on-state current	$V_{DM}= 67\%V_{DRM}$ to 1500A, Gate pulse t _r ≤ 0.5 μ s I _{GM} =1.5A Repetitive	125			100	A/μs
I_{rm}	Reverse recovery current	$I_{TM}=700A, tp=1000μs, di/dt=-20A/μs,$ $V_R =50V$	125			137	A
t_{rr}	Reverse recovery time					15	μs
Q_{rr}	Recovery charge					1027	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	$V_{DM}=0.67V_{DRM}$	125	0.3			V
$R_{th(j-h)}$	Thermal resistance Junction to heat sink	At 180° sine' double side cooled Clamping force 7.0KN				0.05	°C /W
F_m	Mounting force			5.3		10	KN
T_{stg}	Stored temperature			-40		140	°C
W_t	Weight				80		g
Outline	KT25aT						

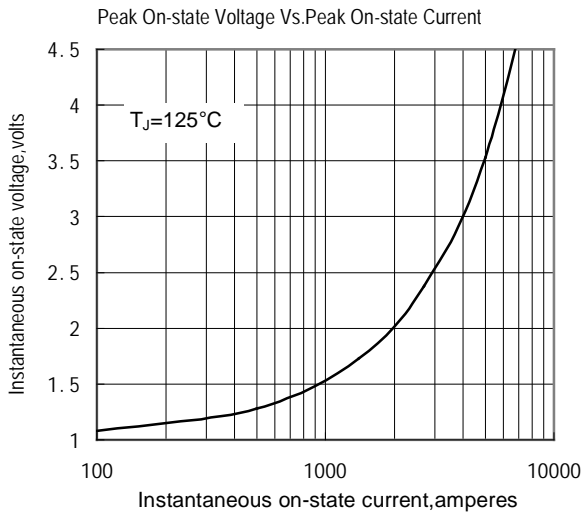


Fig.1

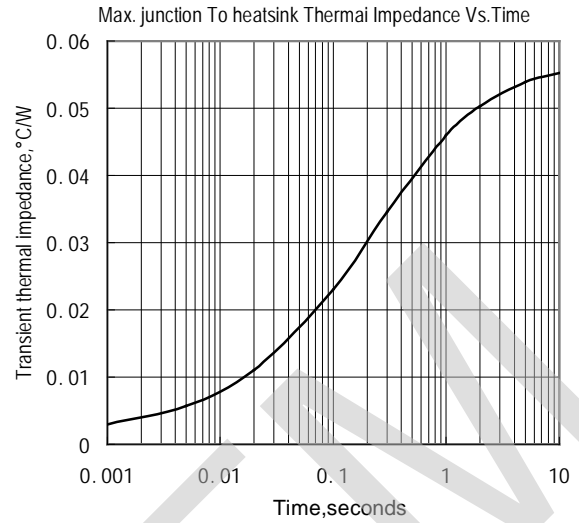


Fig.2

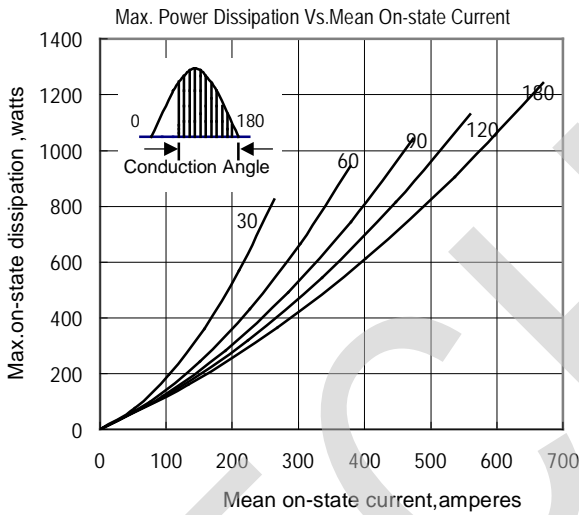


Fig.3

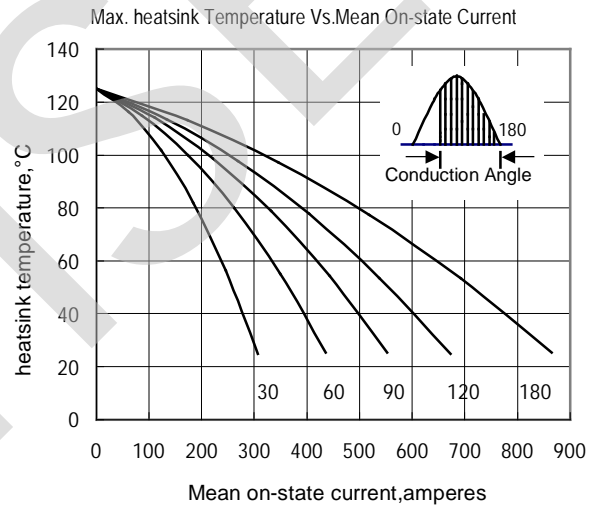


Fig.4

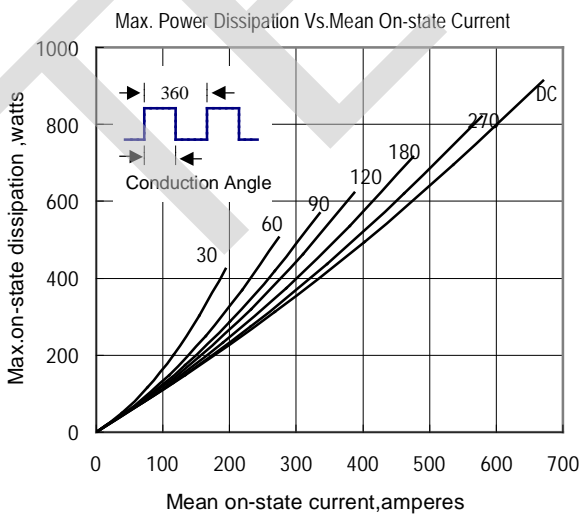


Fig.5

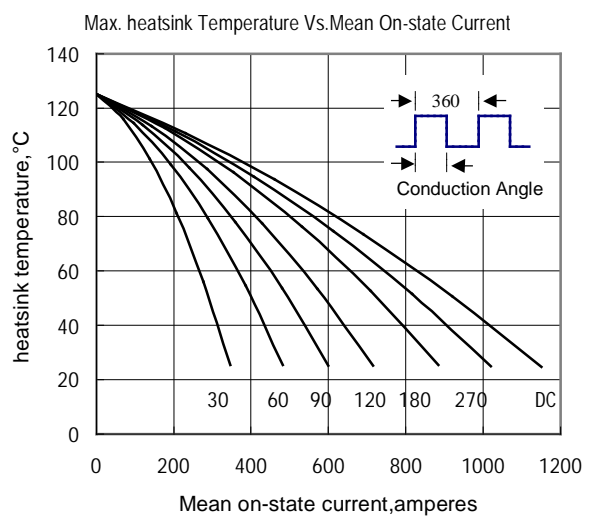


Fig.6

Surge Current Vs.Cycles

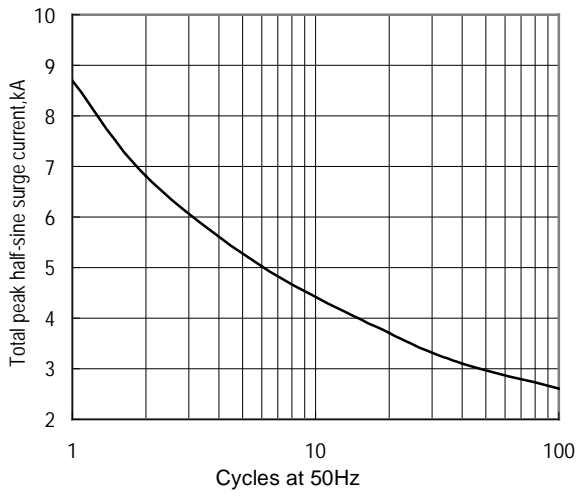


Fig.7

I^2t Vs.Time

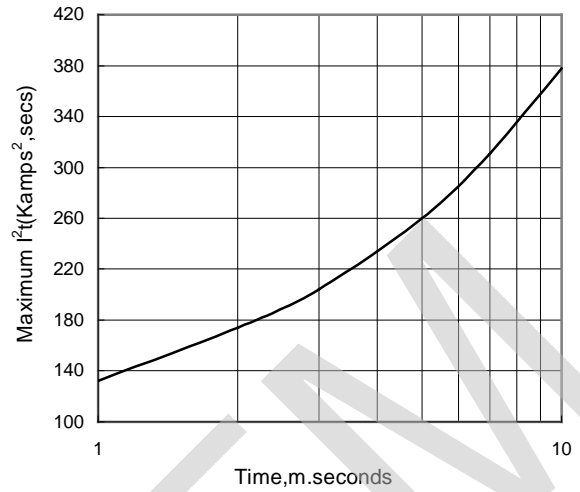


Fig.8

Gate characteristic at 25°C junction temperature

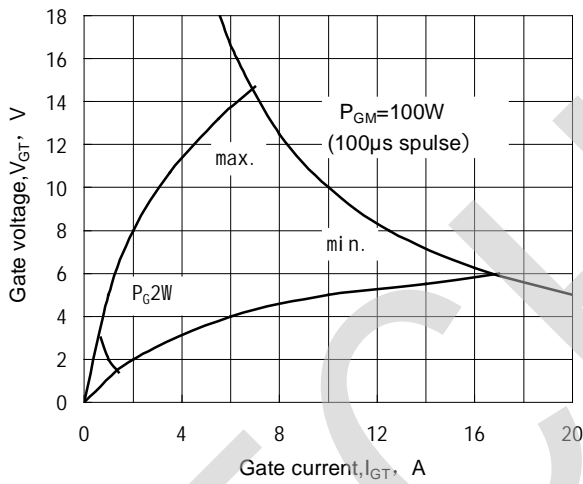


Fig.9

Gate Trigger Zone at varies temperature

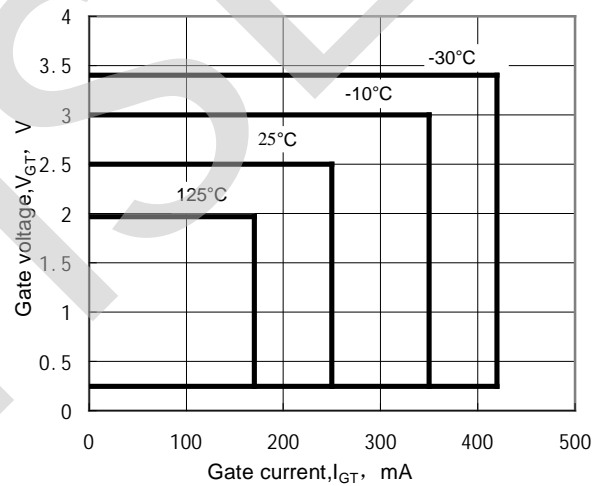


Fig.10

Outline:

