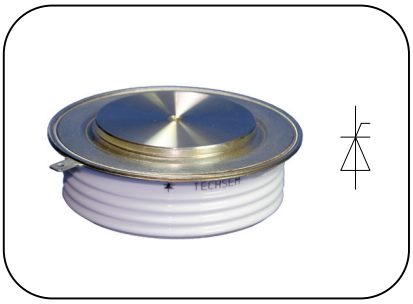
Features

- **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

$I_{T(AV)}$ 1100 A
V_{DRM}/V_{RRM} 3600-4500V
I_{TSM} 15 kA
I^2t 1125 10^3A^2S



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			1100	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms	125	3600		4500	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			200	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=0.6V_{RRM}	125			15	kA
I^2t	I^2t for fusing coordination					1125	A^2s*10^3
V_{TO}	Threshold voltage		125			1.00	V
r_T	On-state slope resistance					0.50	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=1500A, F=24kN	25			1.75	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 2000A, Gate pulse tr ≤0.5μs I_{GM}=2.0A	125			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	40		300	mA
V_{GT}	Gate trigger voltage			0.8		3.0	V
I_H	Holding current			20		200	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=0.67V_{DRM}	125			0.3	V
$R_{th(j-C)}$	Thermal resistance Junction to case	At 180^0 sine, double side cooled Clamping force 24.0kN				0.020	°C /W
$R_{th(C-h)}$	Thermal resistance case to heatsink					0.005	°C /W
F_m	Mounting force			19		26	kN
T_{stg}	Stored temperature			-40		140	°C
W_t	Weight				440		g
Outline	KT50cT						

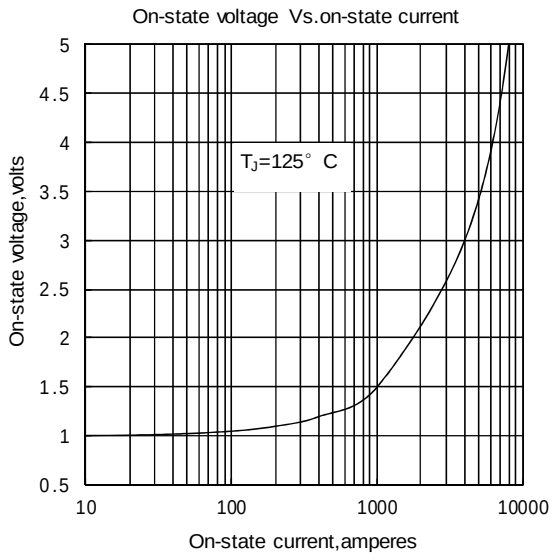


Fig.1

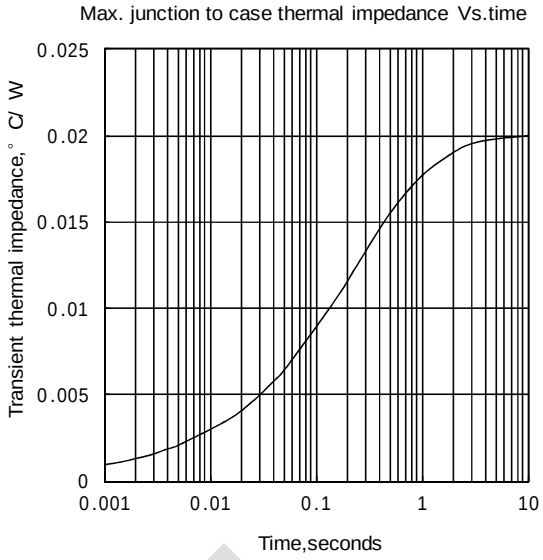


Fig.2

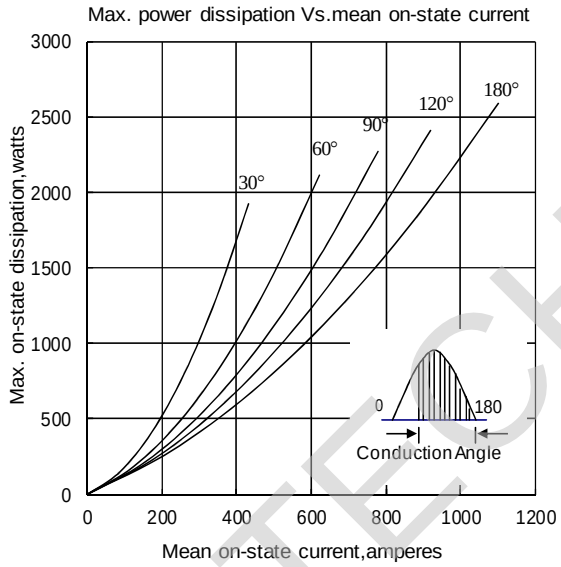


Fig.3

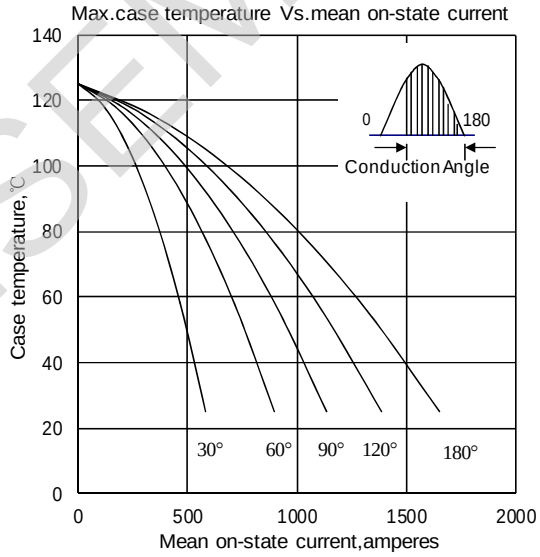


Fig.4

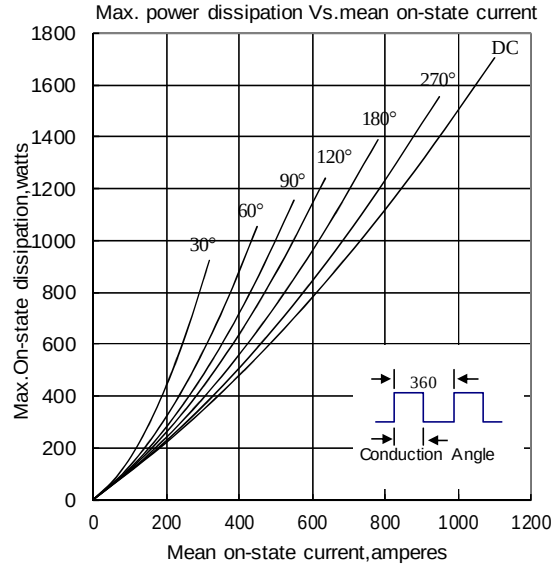


Fig.5

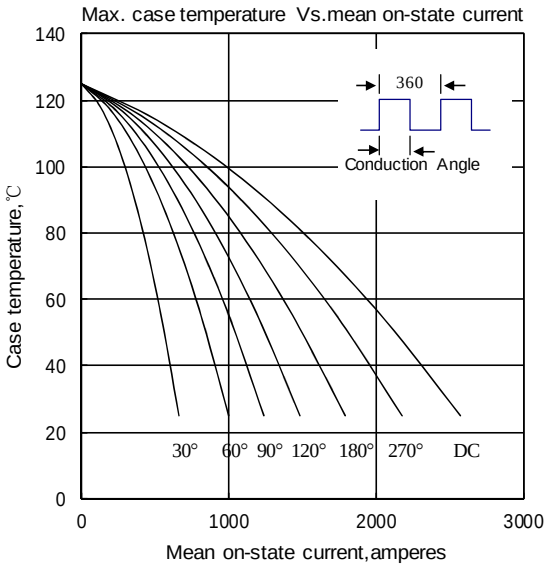


Fig.6

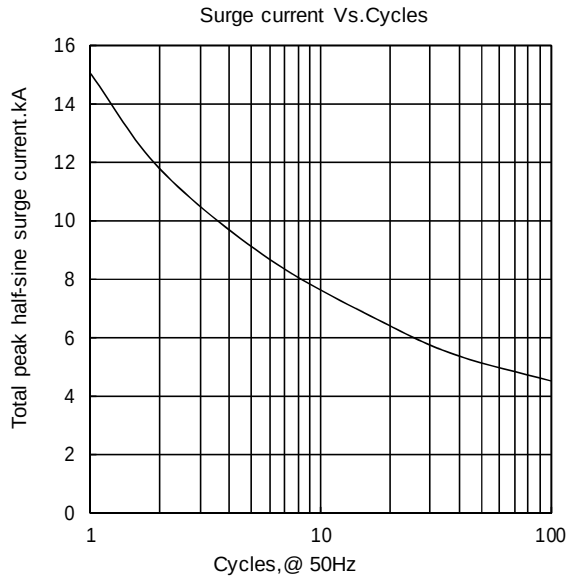


Fig.7

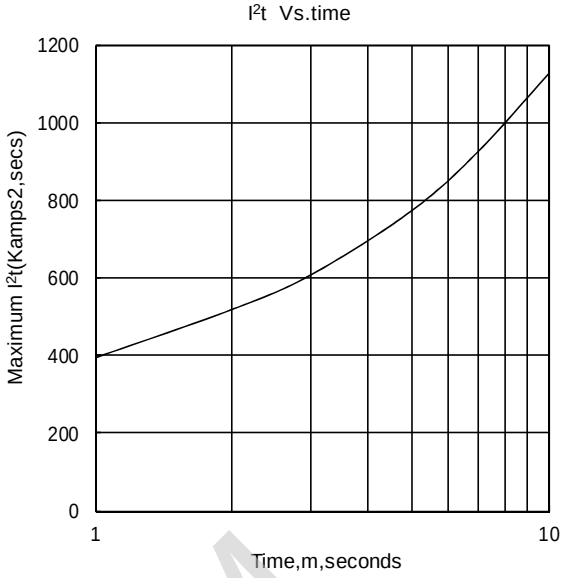


Fig.8

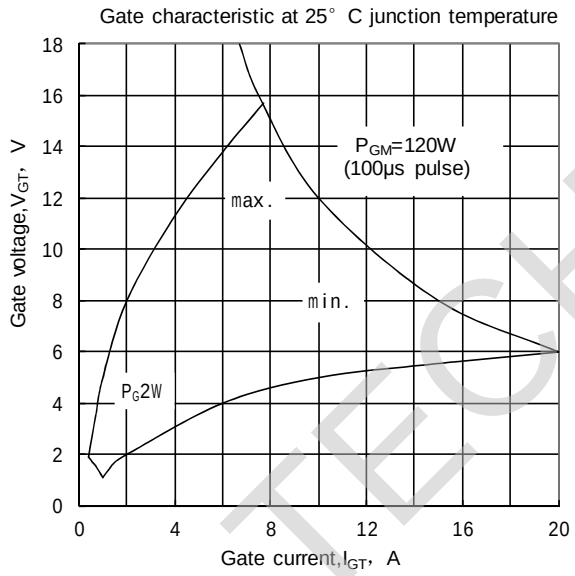


Fig.9

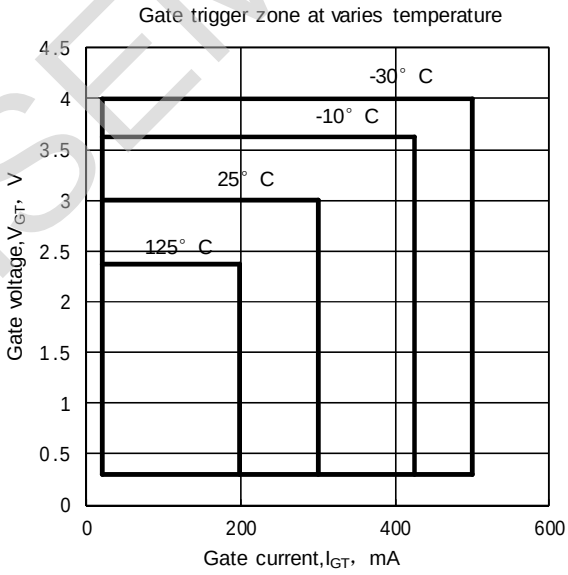


Fig.10

Outline: