

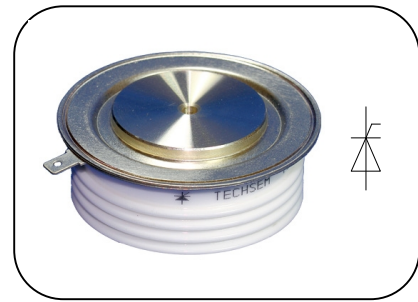
Features

- 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

$I_{T(AV)}$	520A
V_{DRM}/V_{RRM}	3600~4500V
I_{TSM}	6.0 kA
I^2t	180 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 =70°C	125			520	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			100	mA
I _{TSM}	Surge on-state current	10ms half sine wave V _R =0.6V _{RRM}		125			6.0	kA
I ² t	I ² t for fusing coordination						180	A ² s*10 ³
V _{TO}	Threshold voltage			125			1.10	V
r _T	On-state slope resistance						1.30	mΩ
V _{TM}	Peak on-state voltage	I _{TM} =1000A, F=15kN		25			2.40	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} to1300A, Gate pulse t _r ≤0.5μs I _{GM} =1.5A		125			100	A/μs
I _{GT}	Gate trigger current			25	40		300	mA
V _{GT}	Gate trigger voltage	V _A =12V, I _A =1A			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	sine double side cooled					0.035	°C/W
R _{th(c-h)}	Thermal resistance case to heatsink	Clamping force15kN					0.008	°C/W
F _m	Mounting force				10		20	kN
T _{stg}	Stored temperature				-40		140	°C
W _t	Weight					240		g
Outline	KT33cT							

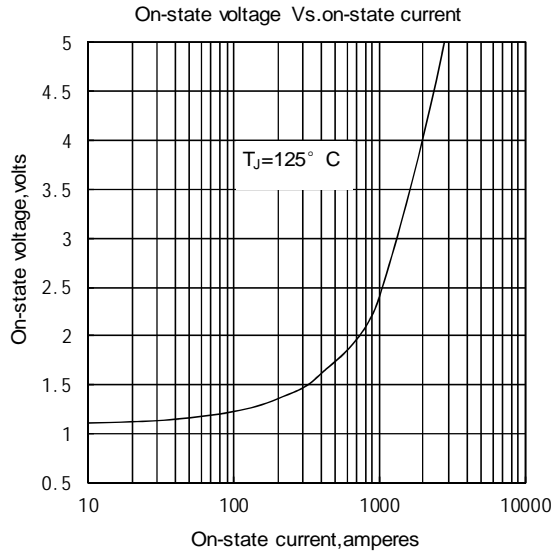


Fig.1

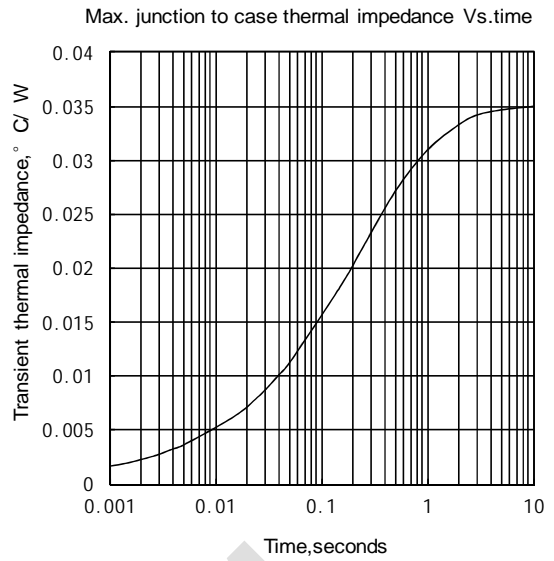


Fig.2

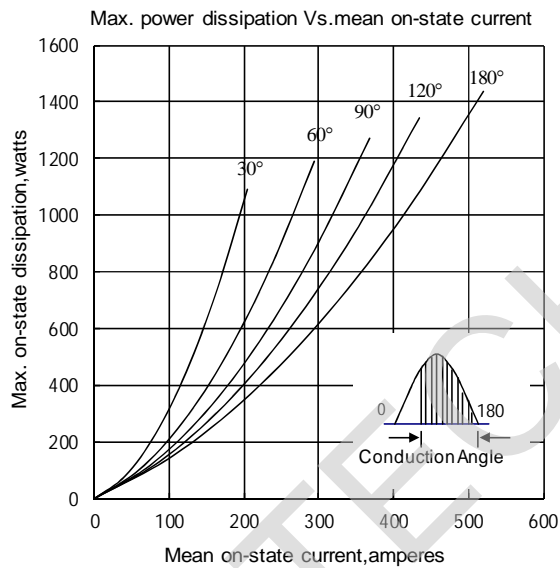


Fig.3

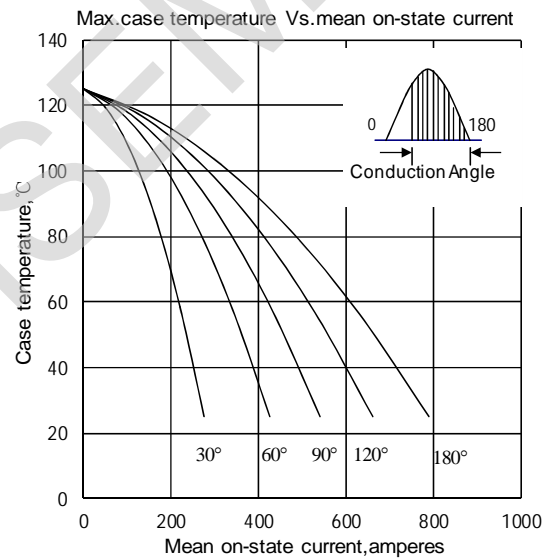


Fig.4

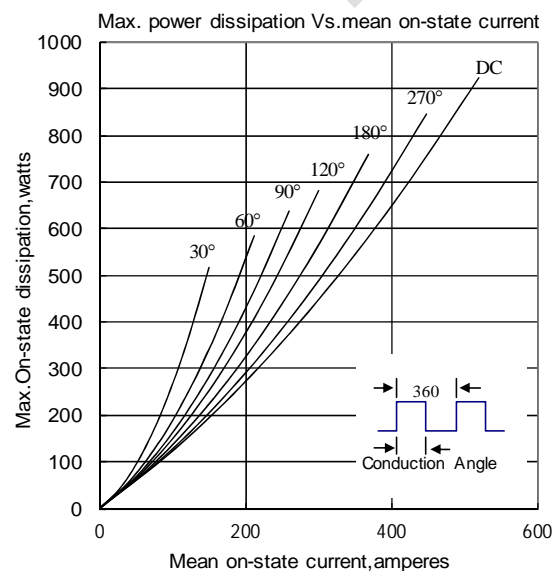


Fig.5

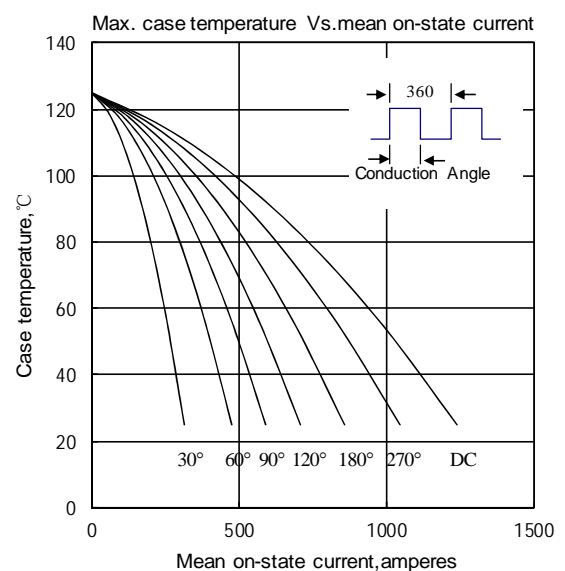


Fig.6

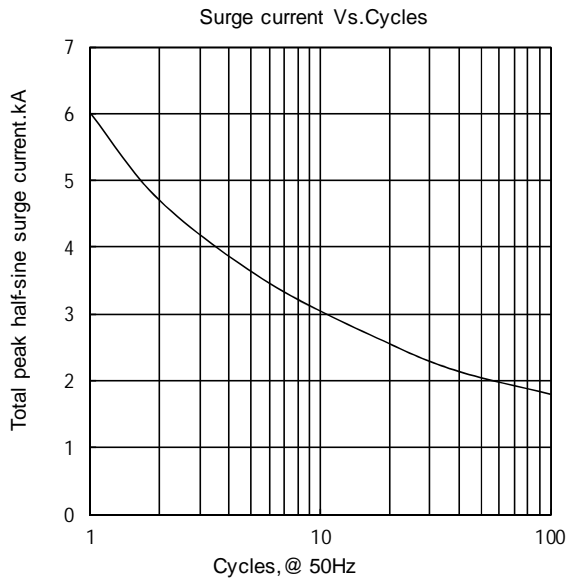


Fig.7

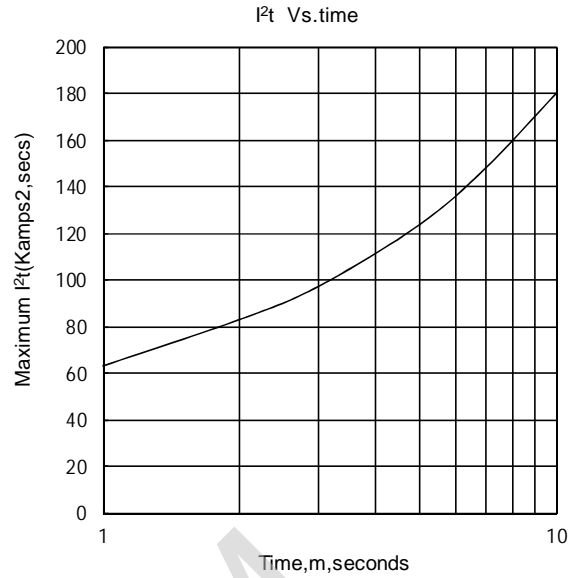


Fig.8

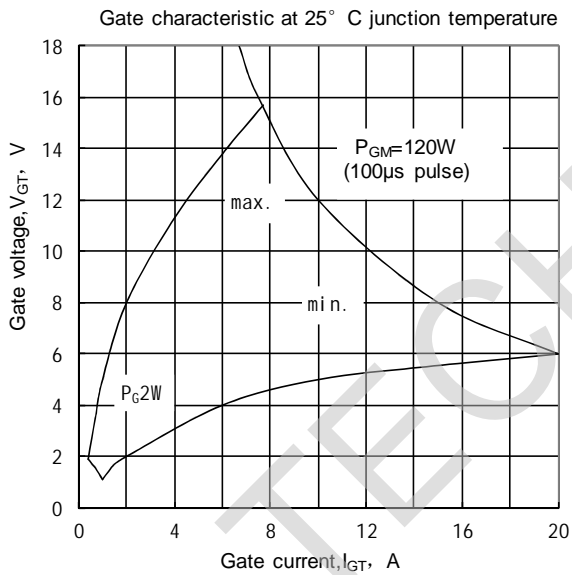


Fig.9

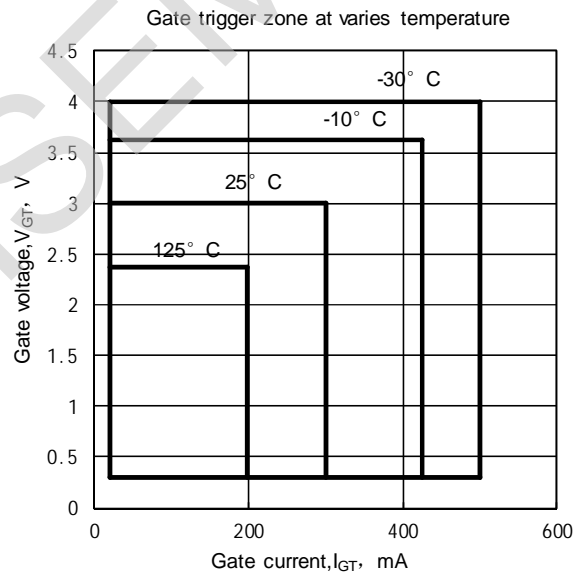


Fig.10

Outline:

