

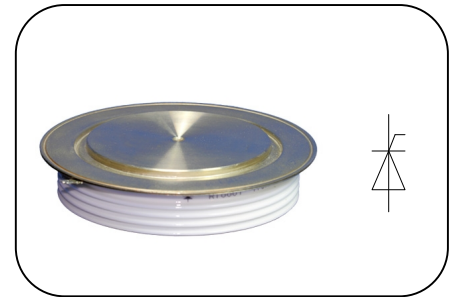
Features

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

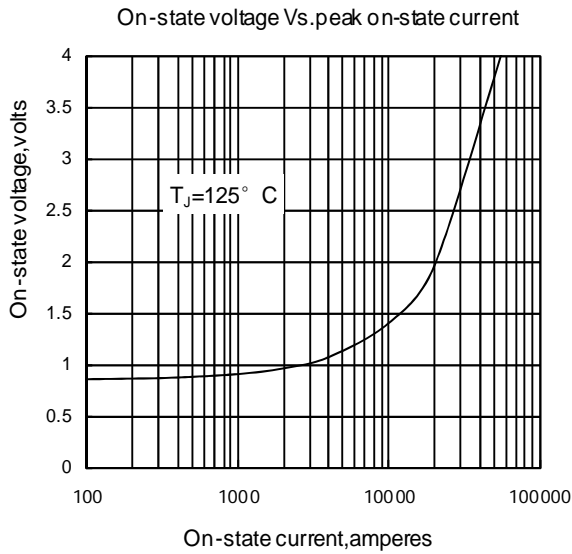
Typical Applications

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

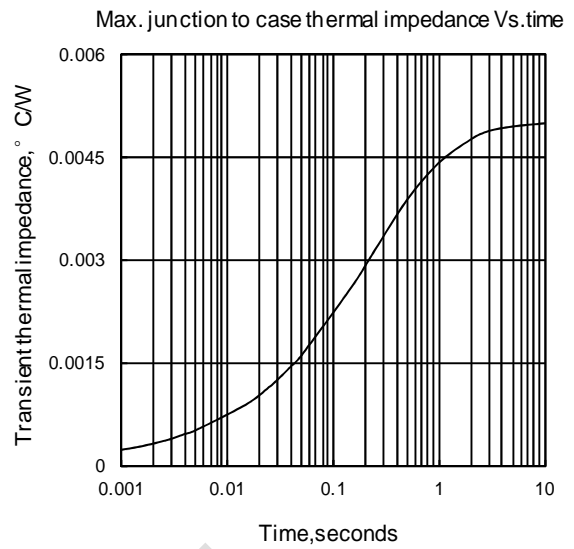
$I_{T(AV)}$	6400 A
V_{DRM}/V_{RRM}	400-1000V
I_{TSM}	74 kA
I^2t	27380 10³A²S



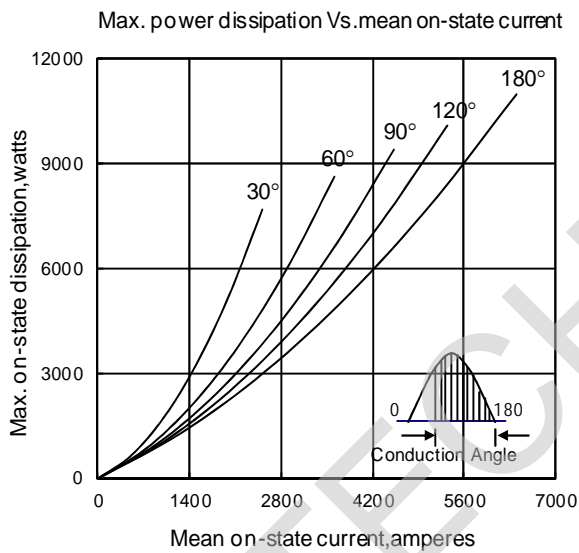
SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T _J (°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled, T _C =70°C				6400	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms	125	400		1000	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			300	mA
I_{TSM}	Surge on-state current	10ms half sine wave $V_R=0.6V_{RRM}$	125			74	kA
I^2t	I^2t for fusing coordination					27380	A ² s*10 ³
V_{TO}	Threshold voltage		125			0.850	V
r_T	On-state slope resistance					0.055	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=5000A, F=90kN$	25			2.00	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 4000A, Gate pulse t _r ≤ 0.5μs I _{GM} =1.5A	125			250	A/μs
Q _{rr}	Recovery charge	$I_{TM}=2000A, tp=2000μs, di/dt=-20A/μs,$ $V_R=50V$	125		3500		μC
I_{GT}	Gate trigger current			50		250	mA
V_{GT}	Gate trigger voltage	$V_A=12V, I_A=1A$	25	0.8		2.5	V
I_H	Holding current			20		1000	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	sine: double side cooled				0.0050	°C /W
$R_{th(c-h)}$	Thermal resistance case to heatsink	Clamping force 90kN				0.0015	
F_m	Mounting force			81		108	kN
T _{stg}	Stored temperature			-40		140	°C
W _t	Weight				2000		g
Outline	KT100cT						



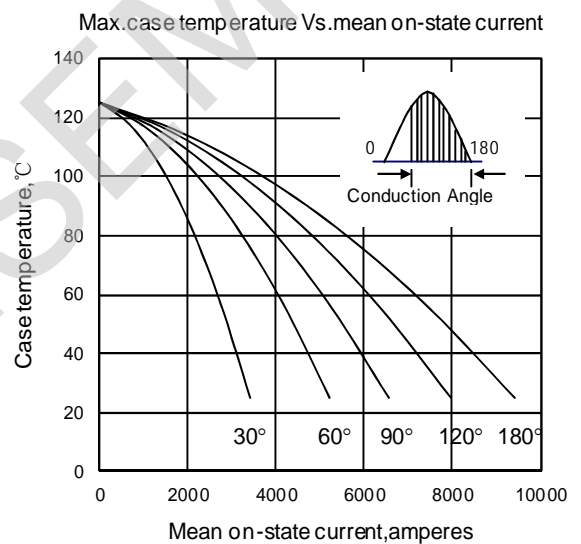
Fi q1



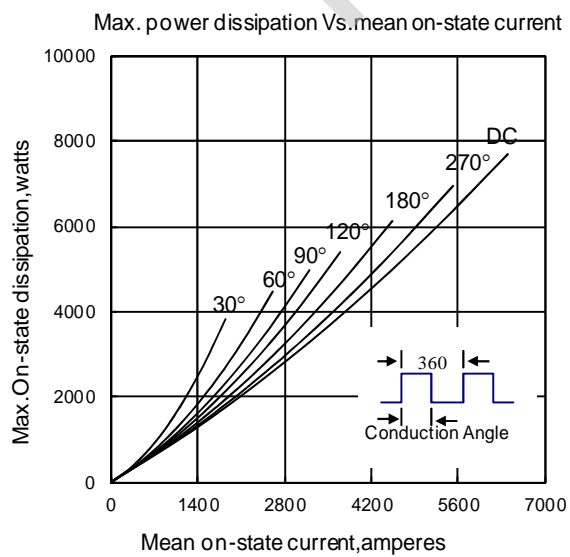
Fi q2



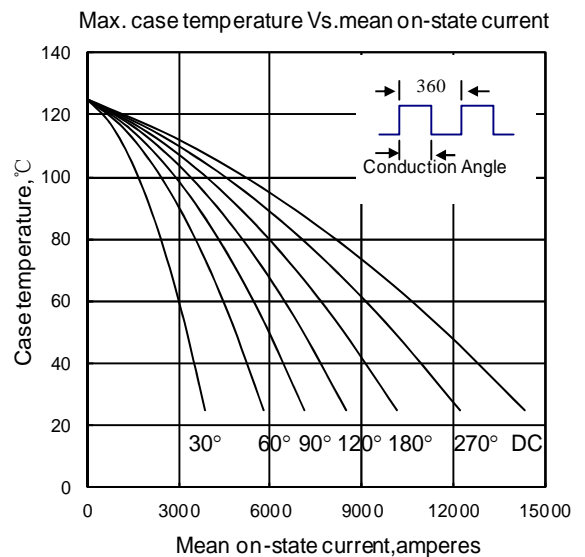
Fi q3



Fi q4



Fi q5



Fi q6

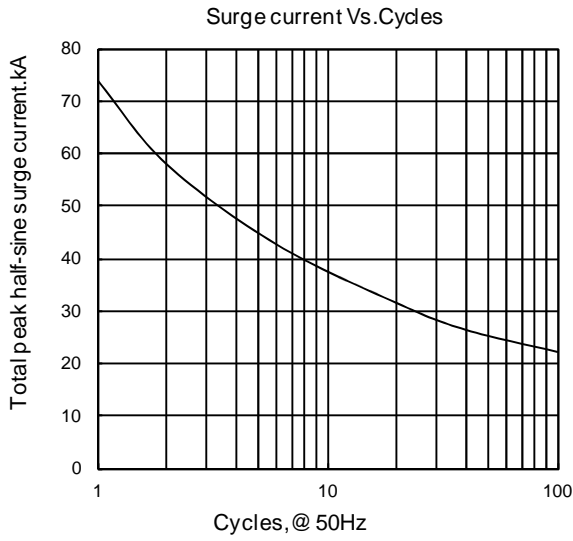


Fig 7

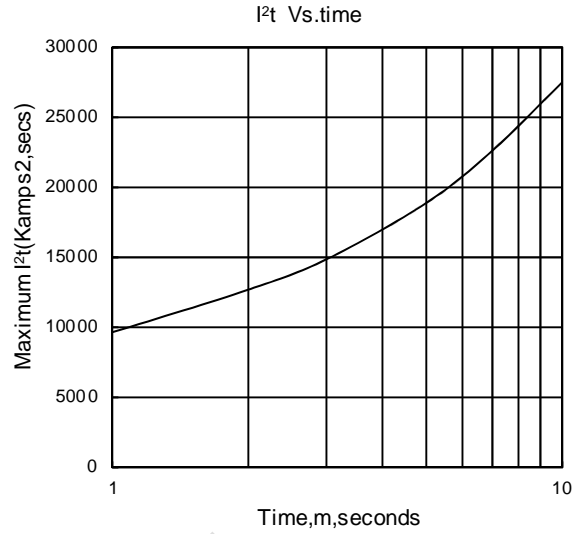


Fig 8

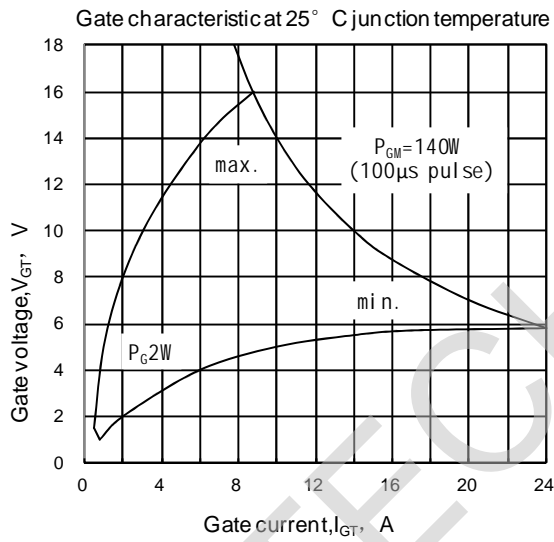


Fig 9

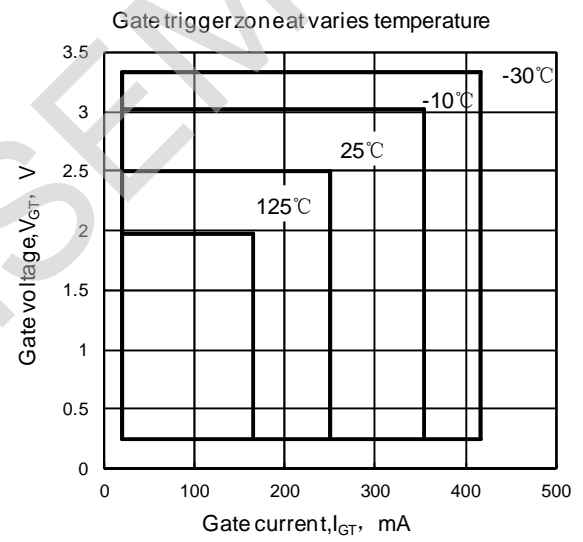


Fig 10

Outline:

