

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

$I_{T(AV)}$ **440A**
 V_{DRM}/V_{RRM} **4500~5500V**
 I_{TSM} **4.5 kA**
 I^2t **101 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		440	A	
V _{DRM} V _{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms		125	4600	5500	V	
I _{DRM} I _{RRM}	Repetitive peak current	at V _{DRM} at V _{RRM}		125		150	mA	
I _{TSM}	Surge on-state current	10ms half sine wave		125		4.5	kA	
I ² t	I ² t for fusing coordination	V _R =0.6V _{RRM}				101	A ² s*10 ³	
V _{TO}	Threshold voltage			125		1.08	V	
r _T	On-state slope resistance					1.92	mΩ	
V _{TM}	Peak on-state voltage	I _{TM} =1000A, F=15kN		125		2.80	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 1300A, Gate pulse t _r ≤0.5μs I _{GM} =1.5A		125		100	A/μs	
Q _{rr}	Recovery charge	I _{TM} =1000A, tp=2000μs, di/dt=-5A/μs, V _R =50V		125	2000		μC	
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		25	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° sine double side cooled Clamping force15kN				0.035	°C/W	
R _{th(c-h)}	Thermal resistance case to heatsink					0.008	°C/W	
F _m	Mounting force				10	15	20	kN
T _{stg}	Stored temperature				-40	140	°C	
W _t	Weight					240	g	
Outline								

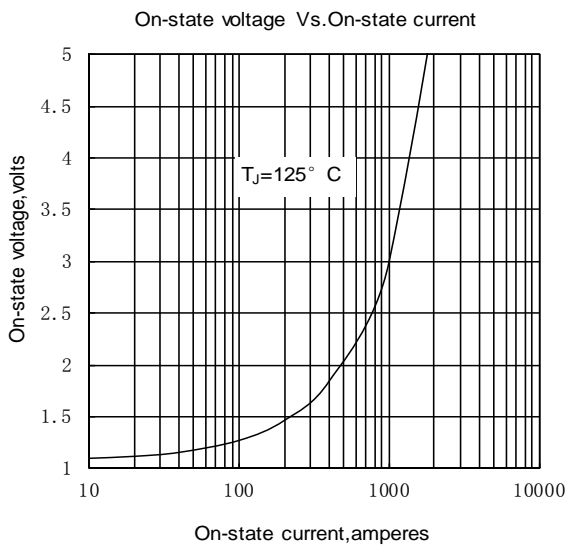


Fig.1

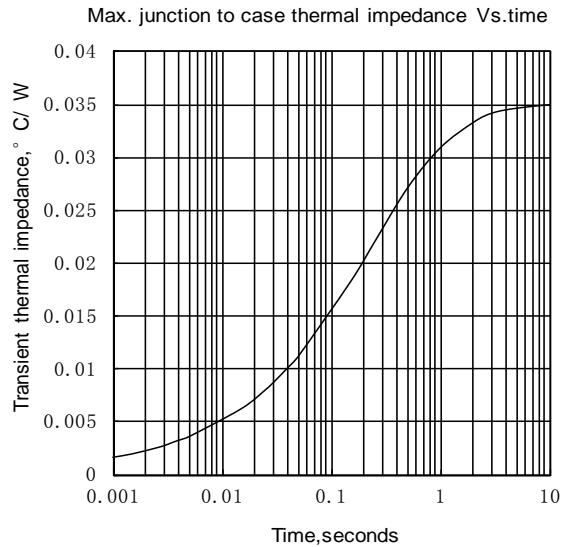


Fig.2

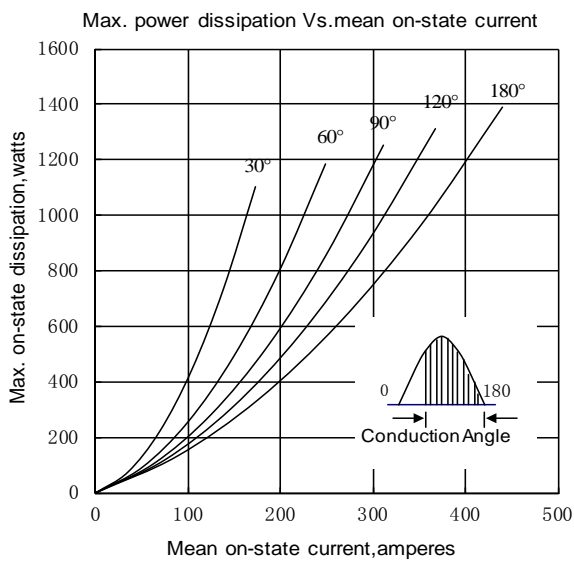


Fig.3

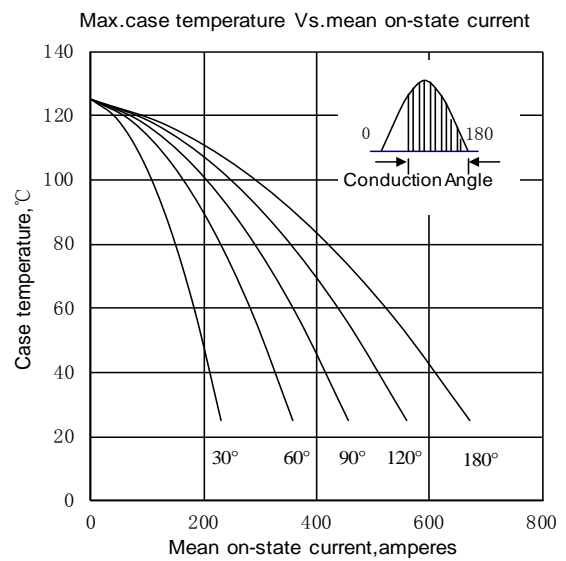


Fig.4

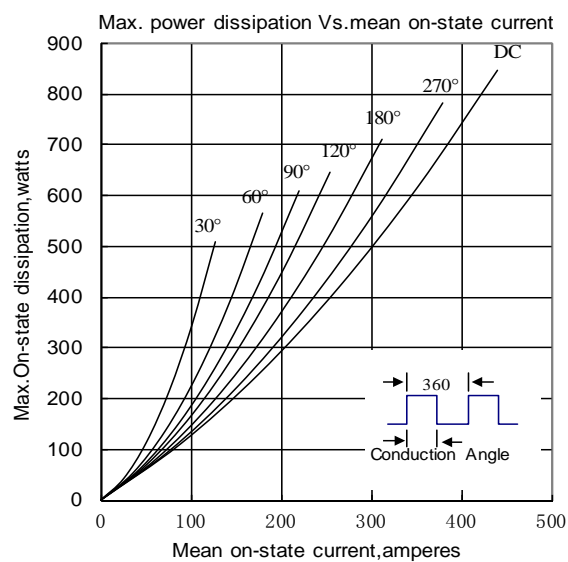


Fig.5

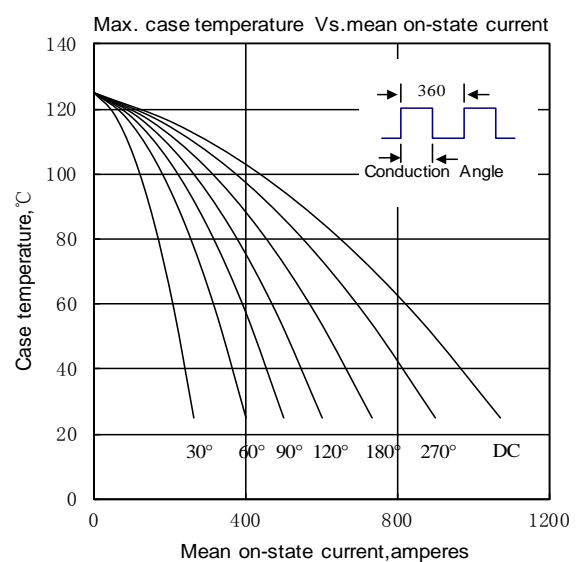


Fig.6

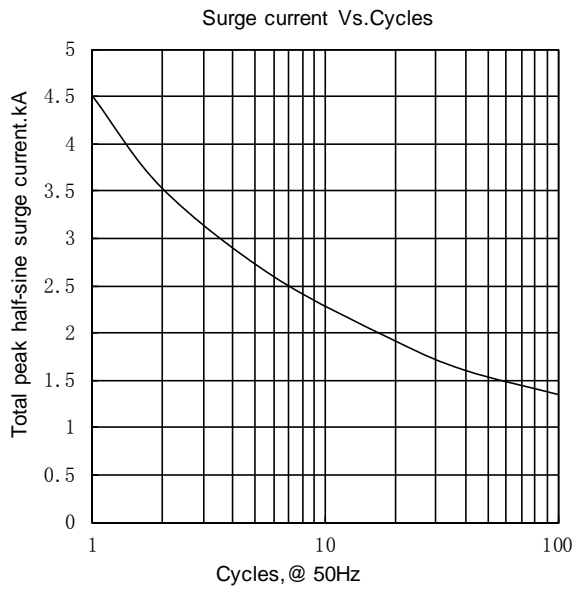


Fig.7

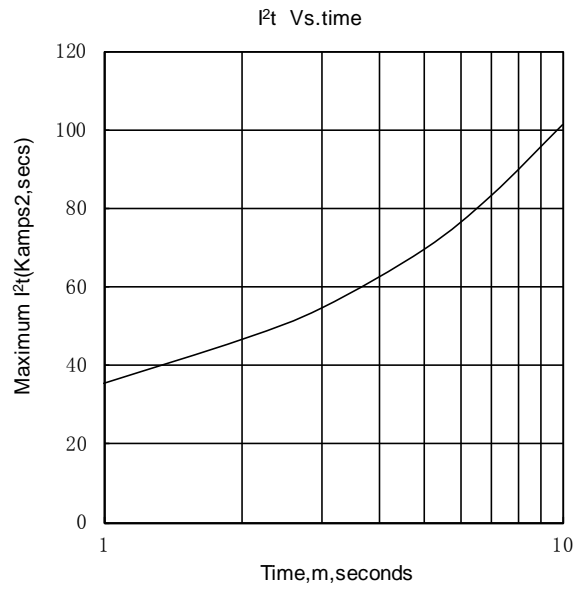


Fig.8

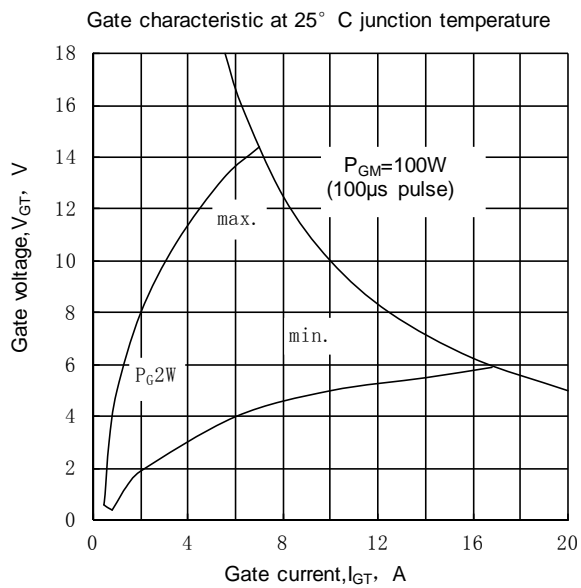


Fig.9

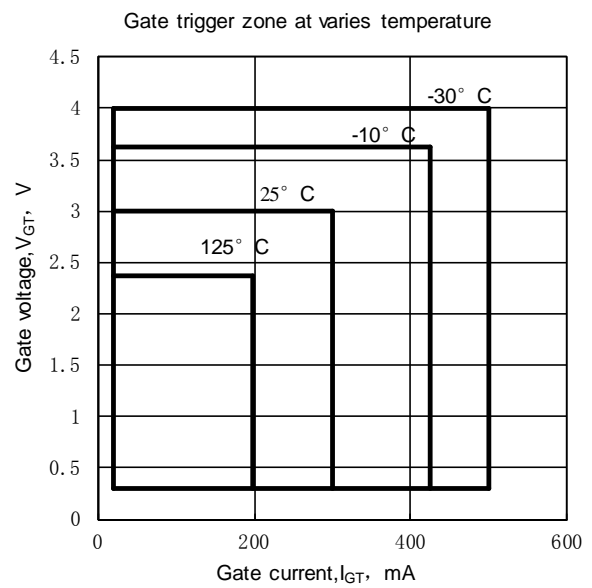


Fig.10

Outline:

