



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

Part No. H150KPU-KT140cT

I_{T(AV)}	4200A
V_{DRM}, V_{RRM}	7500V 8000V
	8500V

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	100		4200	A	
V _{DRM} V _{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms		125	7300	8500	V	
I _{DRM} I _{RRM}	Repetitive peak current	at V _{DRM} at V _{RRM}		100		800	mA	
		@7000V, DC		25		100	μA	
I _{TSM}	Surge on-state current	10ms half sine wave		100		100	kA	
I ² t	I ² t for fusing coordination	V _R =0.6V _{RRM}				50000	10 ³ A ² s	
V _{TO}	Threshold voltage			100		1.56	V	
r _T	On-state slope resistance					0.12	mΩ	
V _{TM}	Peak on-state voltage	I _{TM} =5000A, F=120kN		25		2.40	V	
dv/dt	Critical rate of rise of off-state voltage	V _{DM} =0.67V _{DRM}		100		2000	V/μs	
di/dt	Critical rate of rise of on-state current	V _{DM} = 67%V _{DRM} , Gate pulse t _r ≤0.5μs I _{GM} =1.5A		100		600	A/μs	
Q _{rr}	Recovery charge	I _{TM} =3000A, tp=4000μs, di/dt=-5A/μs, V _R =100V		100		9200	μC	
I _{GT}	Gate trigger current	V _A =12V, I _A =1A		25		40	300	mA
V _{GT}	Gate trigger voltage					0.8	3.5	V
I _H	Holding current					20	1000	mA
I _L	Latching current						1000	mA
V _{GD}	Non-trigger gate voltage	V _{DM} =67%V _{DRM}		100		0.3	V	
R _{th(j-c)}	Thermal resistance Junction to case	At 180° sine double side cooled Clamping force 120kN				0.0020	°C /W	
R _{th(c-h)}	Thermal resistance case to heatsink							0.0005
F _m	Mounting force				165	175	190	kN
T _{vj}	Junction temperature				-40		100	°C
T _{stg}	Stored temperature				-40		140	°C
W _t	Weight					4000		g
Outline	KT140cT							

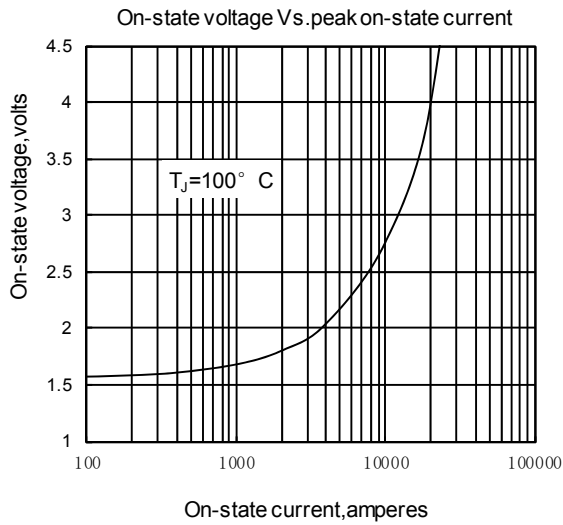


Fig1

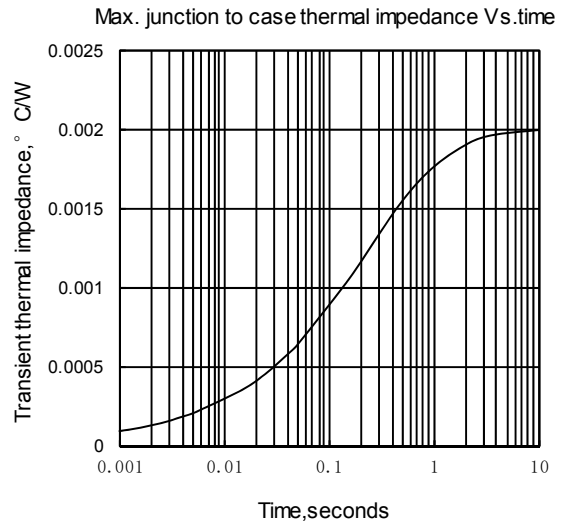


Fig2

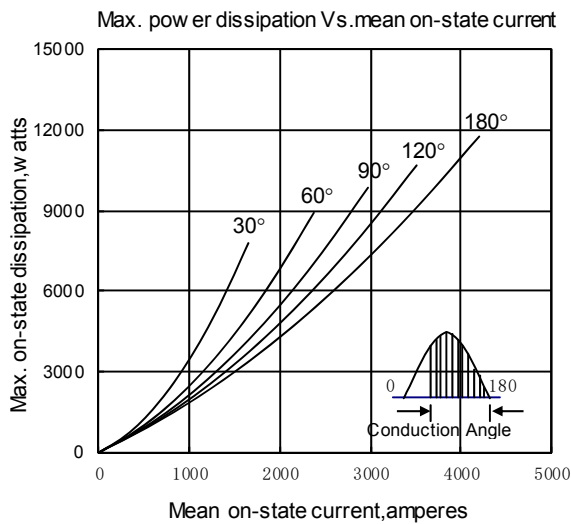


Fig3

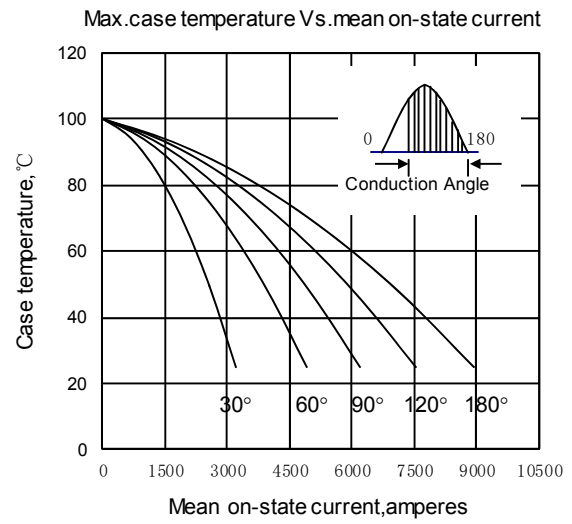


Fig4

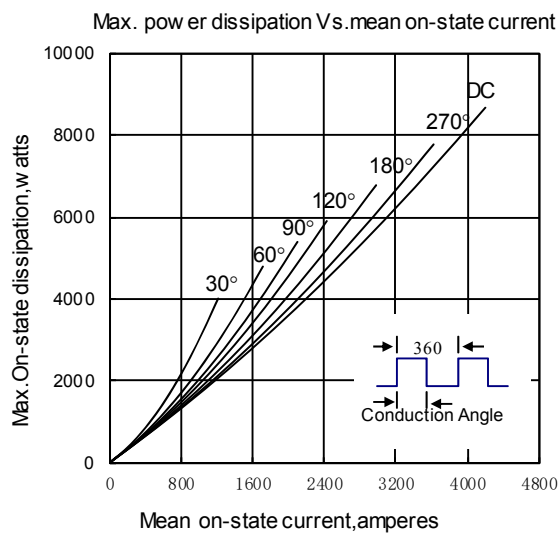


Fig5

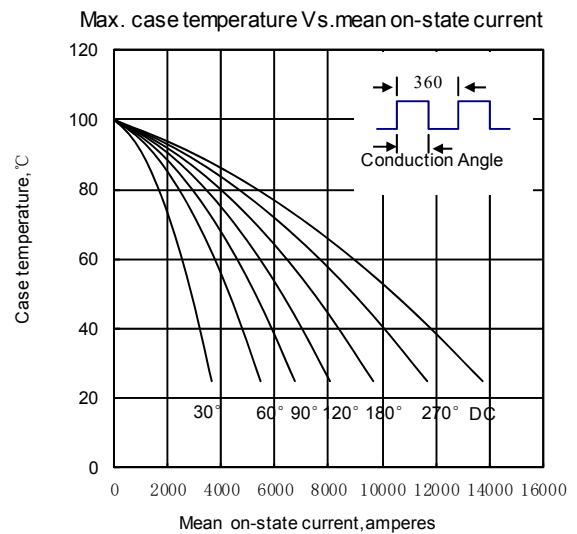


Fig6

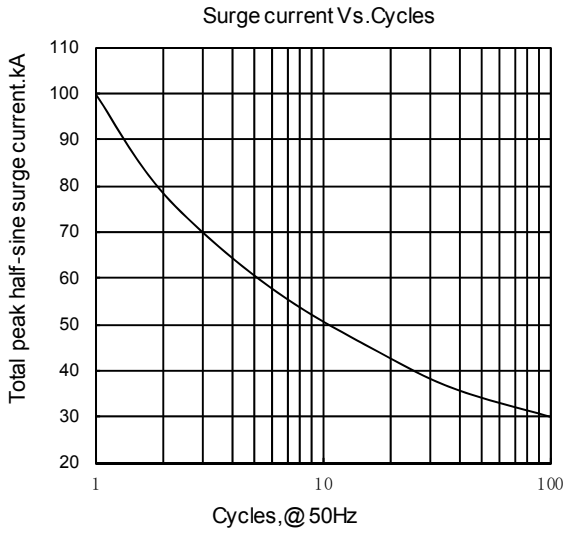


Fig7

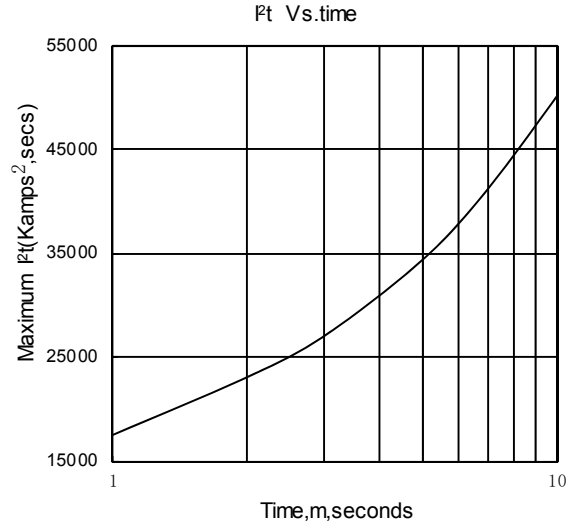


Fig8

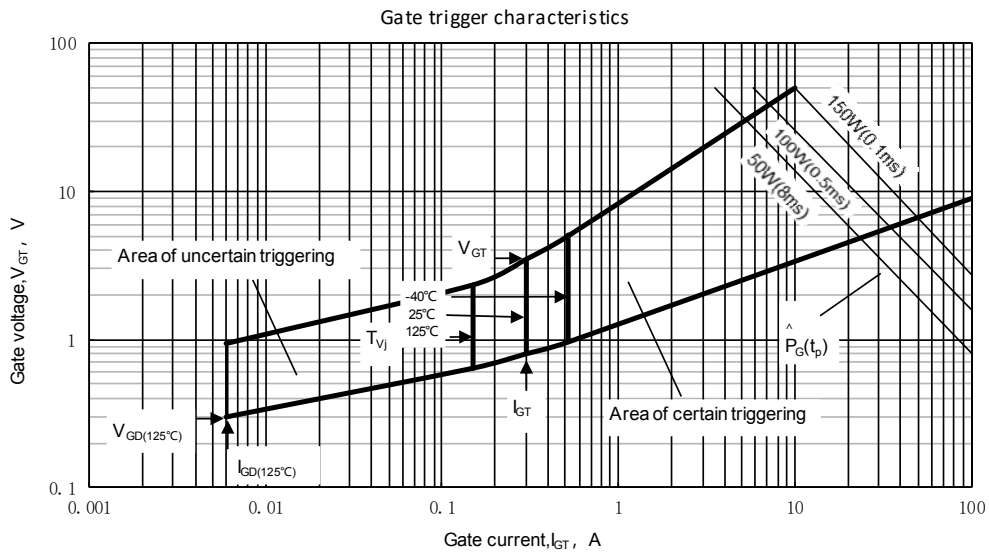
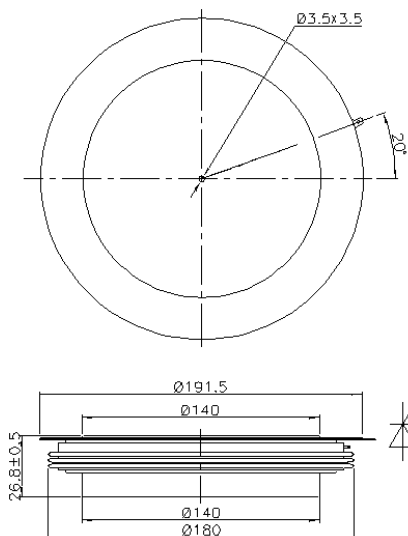


Fig.9

Outline:



TECHSEM reserves the right to change specifications without notice.