

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. H125KPN-KT110dT

I_{T(AV)}	5010A
V_{DRM}, V_{RRM}	4600V 5000V
	5200V 5500V

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			5010	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			600	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			72	kA
I²t	I ² t for fusing coordination	V _R =0.6V _{RRM}				25920	A ² s*10 ³
V_{TO}	Threshold voltage		125			1.02	V
r_T	On-state slope resistance					0.14	mΩ
V_{TM}	Peak on-state voltage	I _{TM} =3000A, F=120kN	125			1.50	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 3000A, Gate pulse tr ≤0.5μs IGM=1.5A	125			250	A/μs
Q_{rr}	Recovery charge	I _{TM} =2000A, tp=4000μs, di/dt=-5A/μs, V _R =100V	125		5500		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		250	mA
I_L	Latching current					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	At 180° sine- double side cooled Clamping force 120.0kN				0.004	°C /W
R_{th(c-hs)}	Thermal resistance case to heatsink					0.001	°C /W
F_m	Mounting force			110	120	140	kN
T_{vj}	Junction temperature			-40		125	°C
T_{stg}	Stored temperature			-40		140	°C
W_t	Weight				3420		g
Outline	KT110dT						

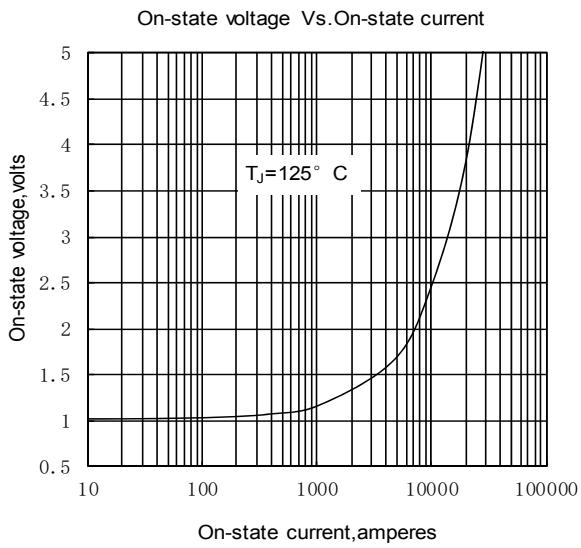


Fig.1

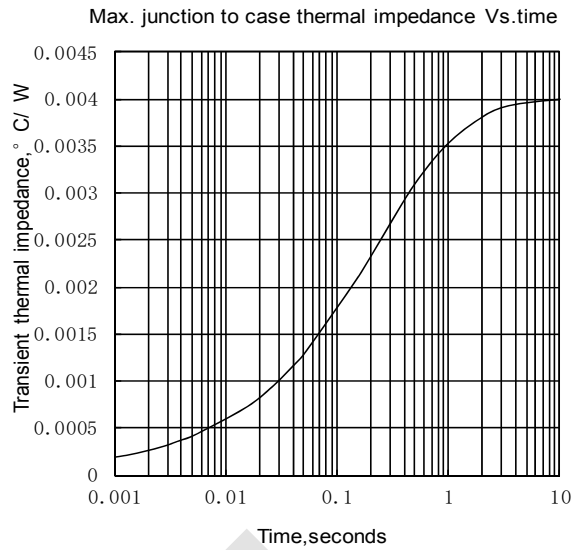


Fig.2

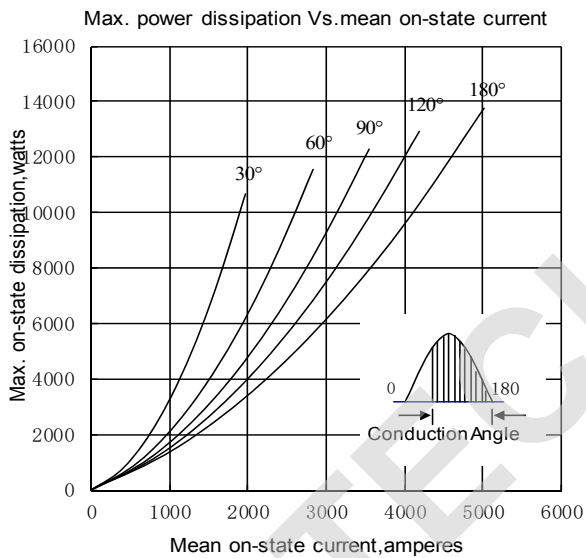


Fig.3

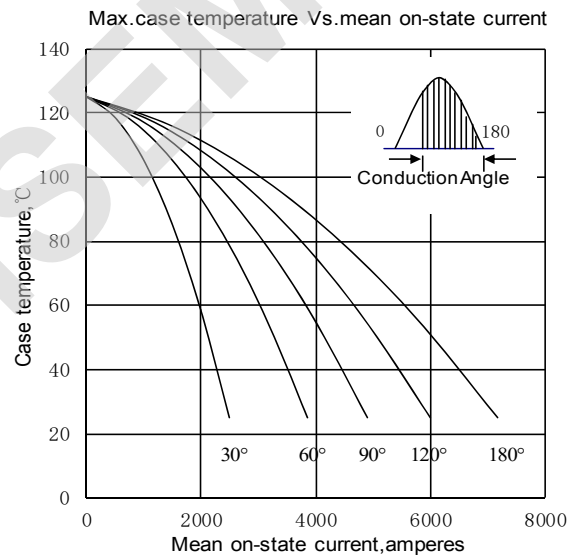


Fig.4

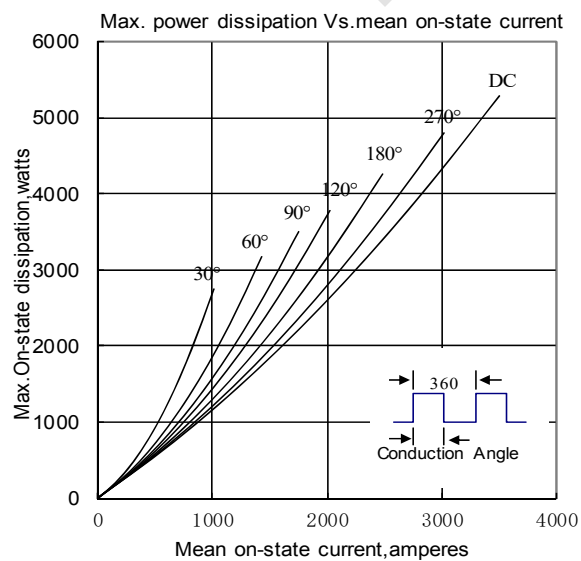


Fig.5

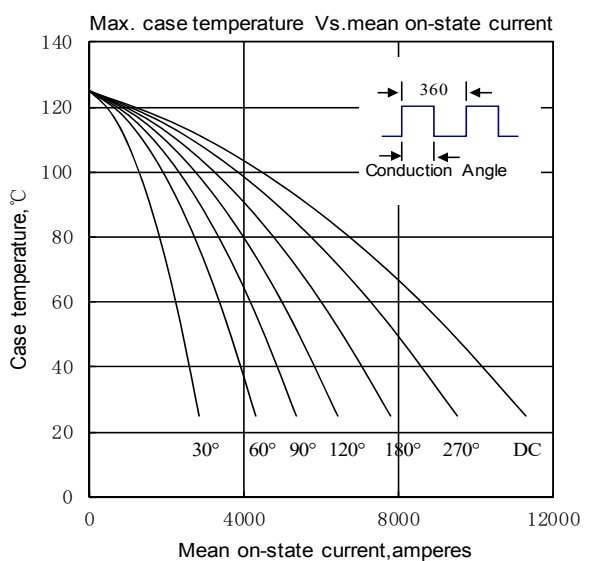


Fig.6

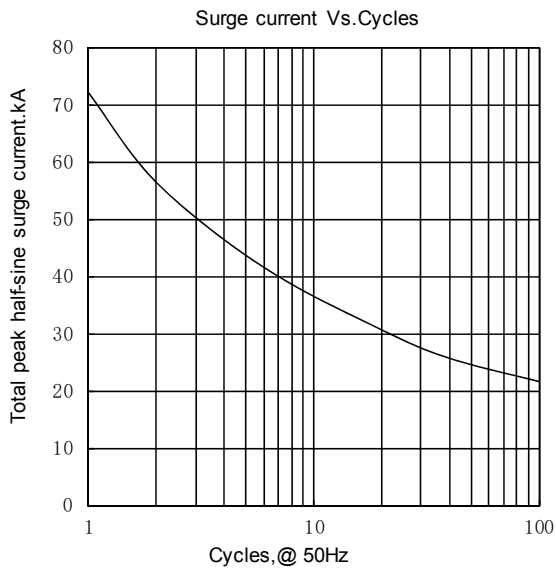


Fig.7

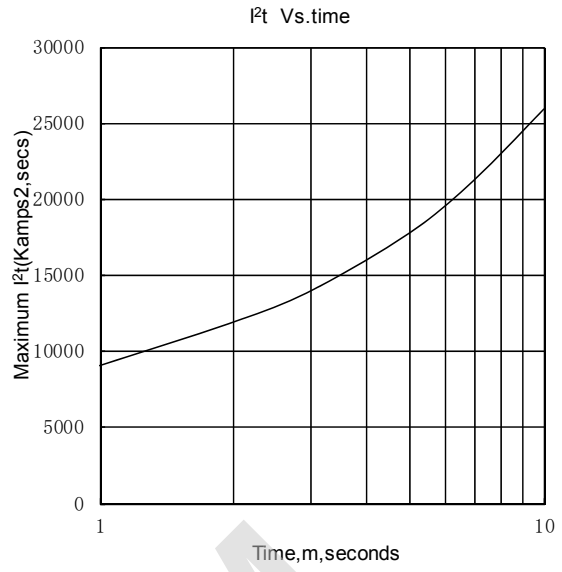


Fig.8

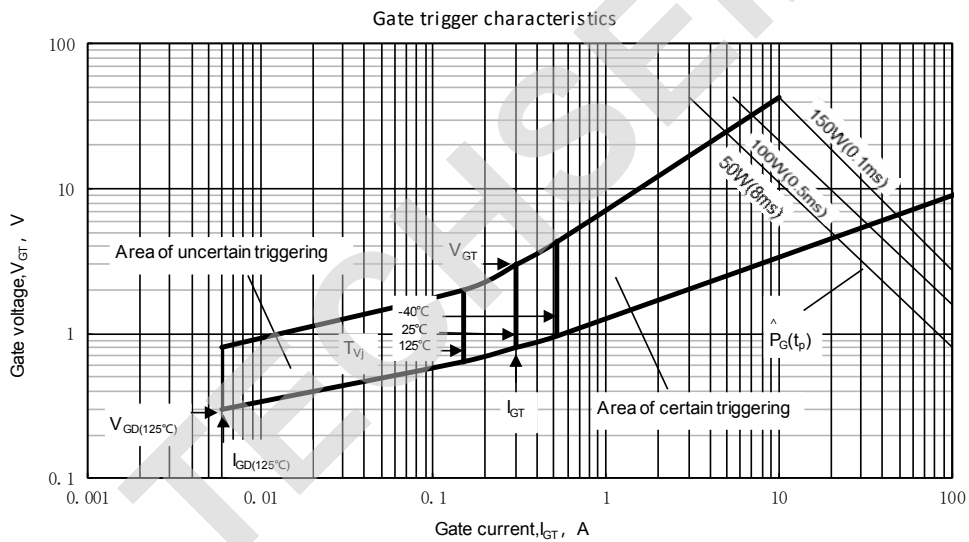
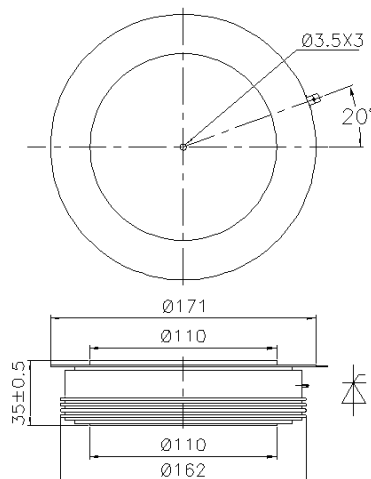


Fig.9

Outline:



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