

**Features**

Interdigitated amplifying gates
Fast turn-on and high di/dt
Low switching losses

Typical Applications

Pulsed power
Ignitron Replacement

Part No. H100KMJ-KT100cT

I_{PK} **180kA**
V_{DRM}, V_{RRM} **4000V 4200V**

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T _J (C)	VALUE			UNIT
				Min	Type	Max	
I _{pk}	Pulse peak on-state current	Single pulse sine wave tp: 500μs	110			180	kA
I _{T(AV)}	Mean on-state current	180 half sine wave 50Hz Double side cooled, T _C =70 C	110			4500	A
V _{DRM} V _{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms	110	4000		4200	V
I _{DRM} I _{RRM}	Repetitive peak current	at V _{DRM} at V _{RRM}	110			500	mA
I _{TSM}	Surge on-state current	10ms half sine wave	110			60	kA
I ² t	I ² t for fusing coordination	V _R =0.6V _{RRM}				18000	A ² s*10 ³
V _{TM}	Peak on-state voltage	I _{TM} =5000A, F=90kN, tp=10ms	25			1.80	V
dv/dt	Critical rate of rise of off-state voltage	V _{DM} =0.67V _{DRM}	110			2000	V/μs
di/dt	Critical rate of rise of on-state current	Gate pulse t _r ≤0.5μs I _{GM} =1.5A	110			3000	A/μs
Q _{rr}	Recovery charge	I _{TM} =2000A, tp=4000μs, di/dt=-20A/μs, V _R =100V	110		19000		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}	110	0.25			V
R _{th(j-c)}	Thermal resistance Junction to case	At 180° sine double side cooled Clamping force 90 kN				0.0050	C /W
R _{th(c-h)}	Thermal resistance case to heat sink					0.0015	C /W
F _m	Mounting force			81		108	kN
T _{vj}	Junction temperature			-40		110	C
T _{stg}	Stored temperature			-40		140	C
W _t	Weight				1880		g
Outline	KT100cT						

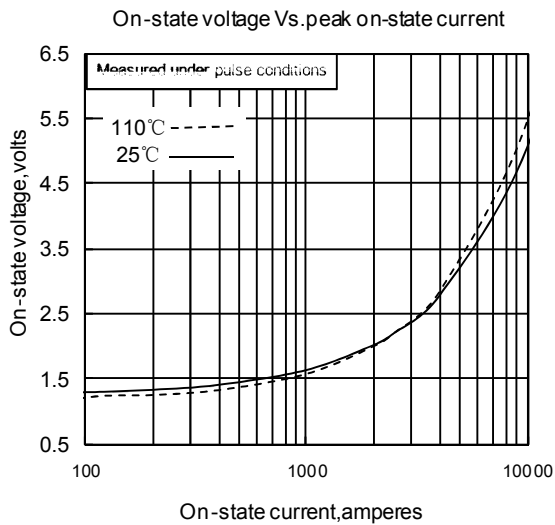


Fig.1

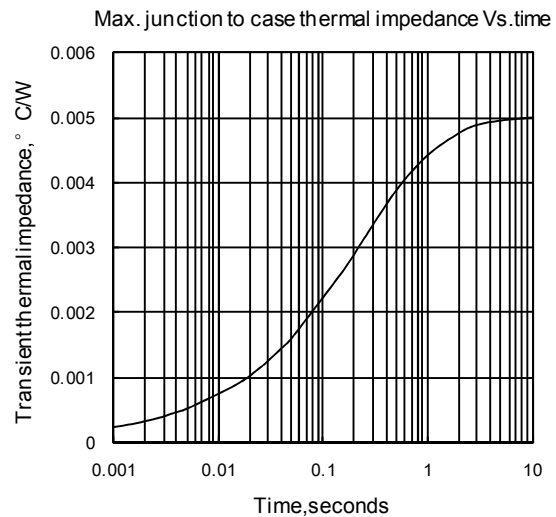


Fig.2

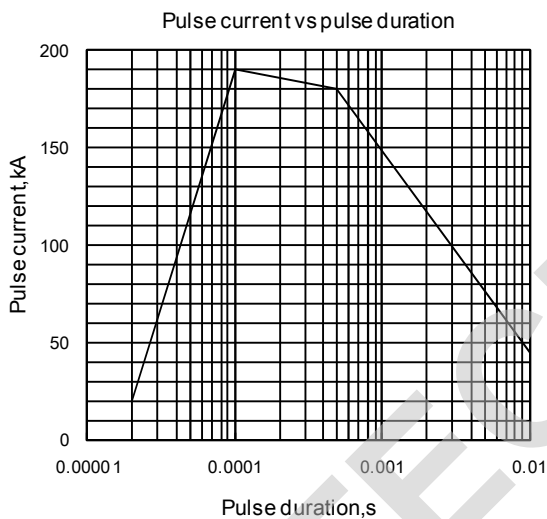


Fig.3

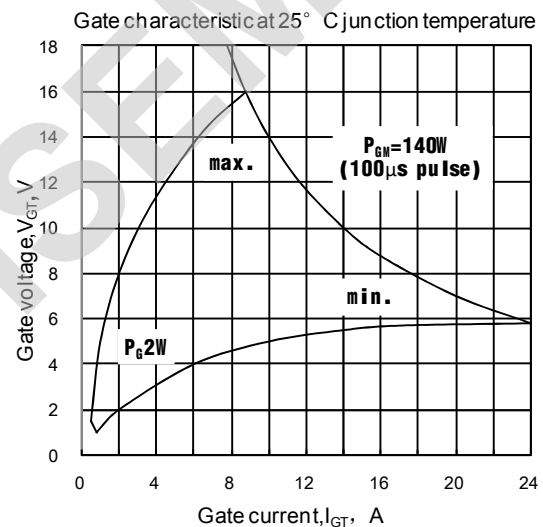


Fig.4

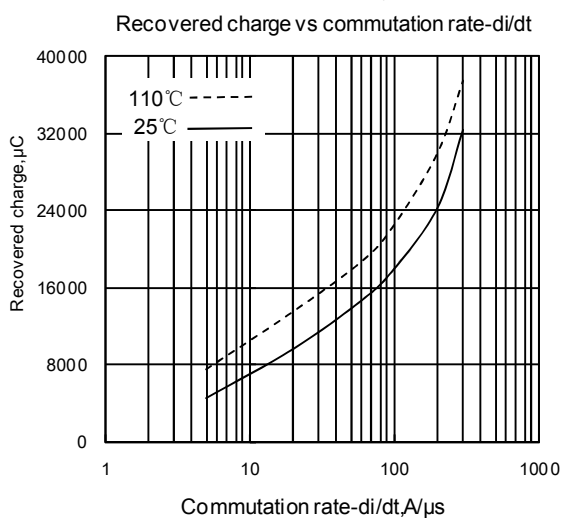


Fig.5

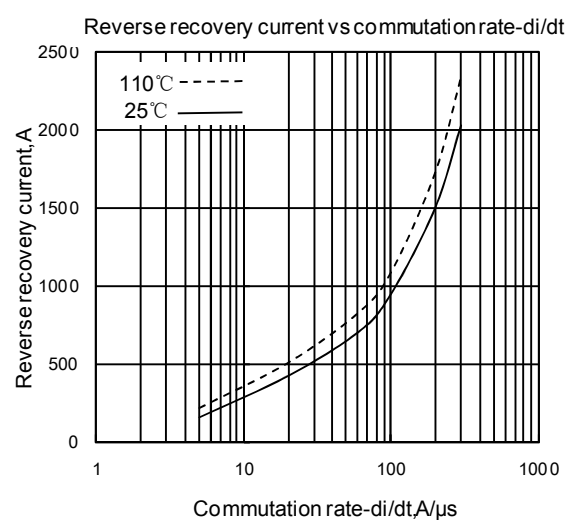
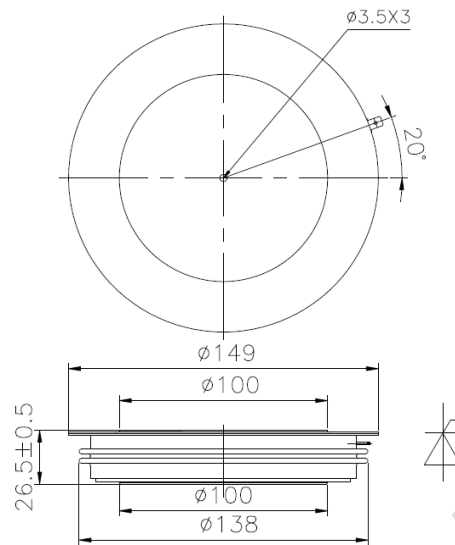


Fig.6

Outline:



TECHSEM reserves the right to change specifications without notice.