**Features**

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

Typical Applications

- Pulsed power
- Ignitron Replacement

Part No. H50KMR-KT50cT

I_{PK}	25kA
V_{DRM}, V_{RRM}	5600V 6000V
	6500V

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_J(^{\circ}C)$	VALUE			UNIT
				Min	Type	Max	
I_{PK}	Pulse peak on-state current	Single pulse sine wave $t_p: 500\mu s$	110			25	kA
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Double side cooled, $T_C=70^{\circ}C$	110			830	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	$t_p=10ms$	110	5600		6500	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	110			200	mA
I_{TSM}	Surge on-state current	10ms half sine wave	110			11.8	kA
I^2t	I^2t for fusing coordination	$V_R=0.6V_{RRM}$				696	$A^2s \cdot 10^3$
V_{TM}	Peak on-state voltage	$I_{TM}=1000A$, $F=24kN$, $t_p=10ms$	25			2.40	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	$V_{DM}=67\%V_{DRM}$ to 4000A Gate pulse $t_g \leq 0.5\mu s$ $I_{GM}=1.5A$	110			3000	A/ μs
Q_{rr}	Recovery charge	$I_{TM}=1000A$, $t_p=4000\mu s$, $di/dt=-20A/\mu s$, $V_R=100V$	110		2500		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
I_L	Latching current					1000	mA
V_{GD}	Non-trigger gate voltage	$V_{DM}=67\%V_{DRM}$	110			0.3	V
$R_{th(j-c)}$	Thermal resistance Junction to case	At 180° sine, double side cooled Clamping force 24kN				0.020	$^{\circ}C/W$
$R_{th(c-h)}$	Thermal resistance case to heat sink					0.005	
F_m	Mounting force			19		26	kN
T_{vj}	Junction temperature			-40		110	$^{\circ}C$
T_{stg}	Stored temperature			-40		120	$^{\circ}C$
W_t	Weight				440		g
Outline	KT50cT						

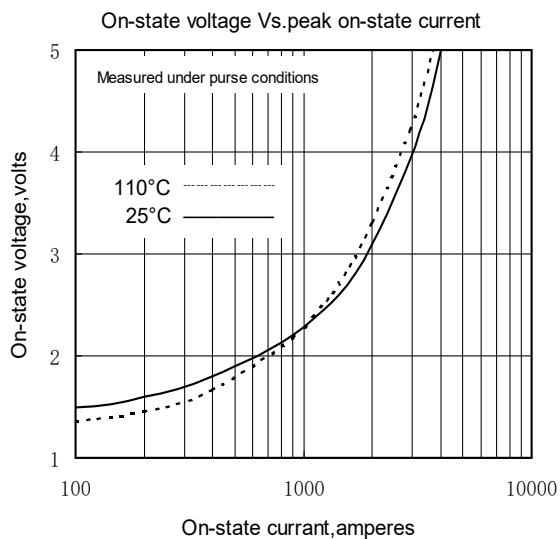


Fig1

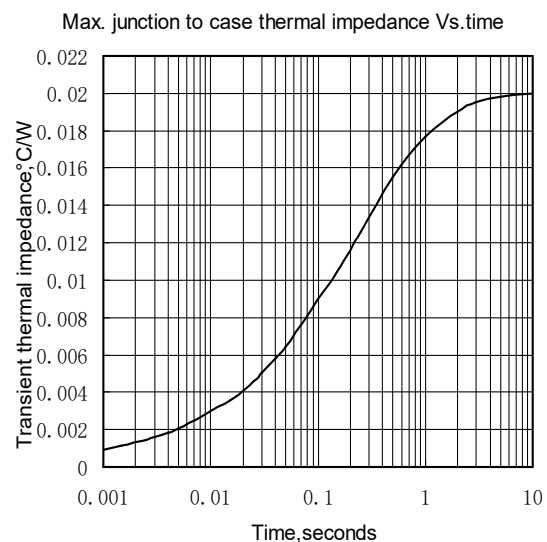


Fig2

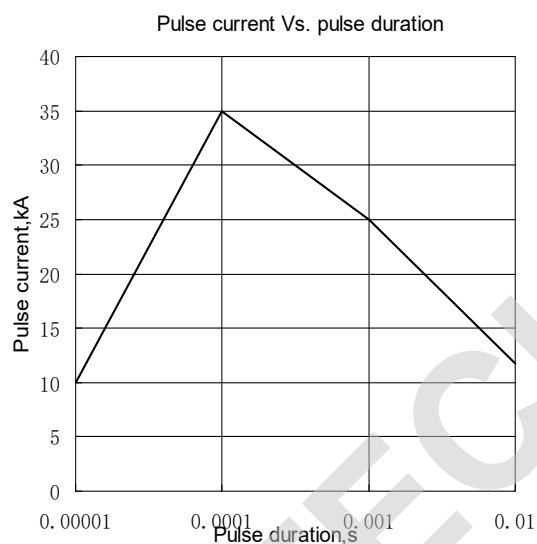


Fig3

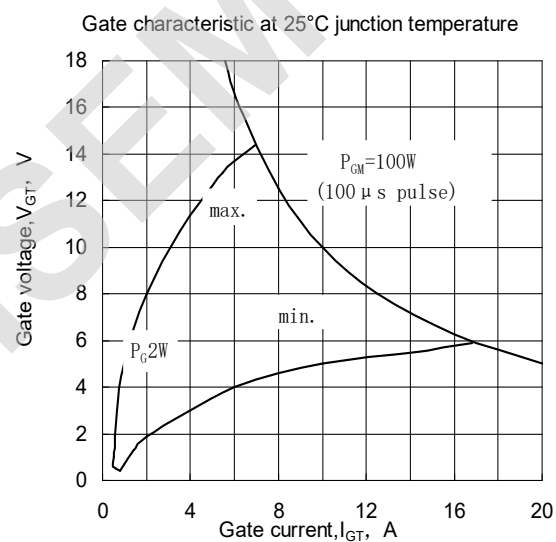


Fig4

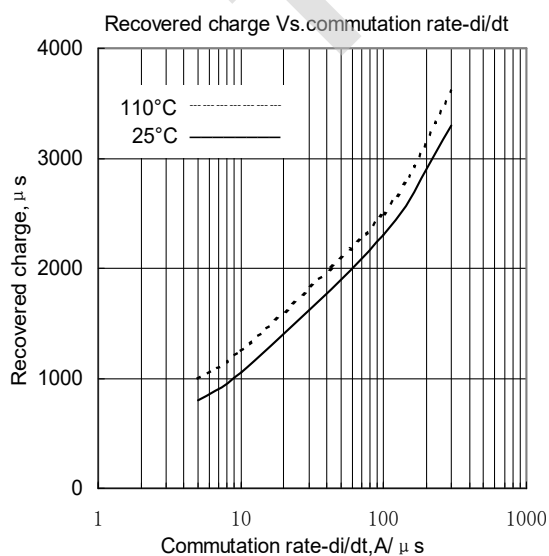


Fig5

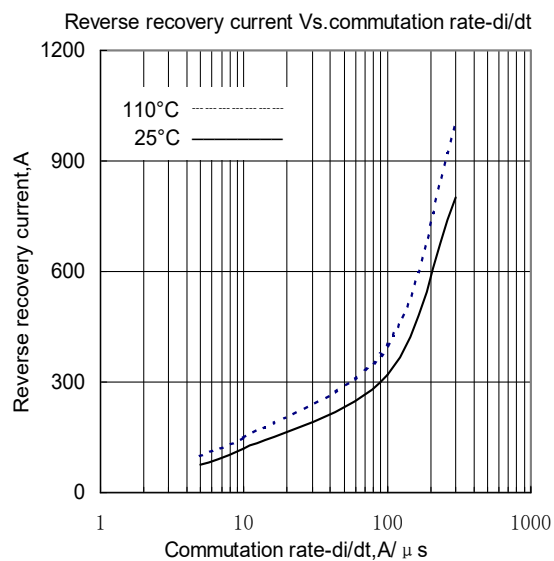
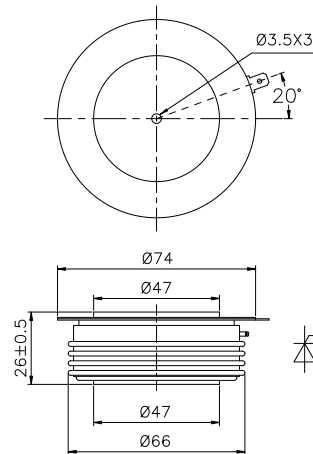


Fig6

Outline:



TECHSEM reserves the right to change specifications without notice.