

**Features**

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

**Typical Applications**

- Pulsed power
- Ignitron Replacement

**Part No. H50KMR-KT50cT**

<b>I<sub>PK</sub></b>	<b>25kA</b>
<b>V<sub>DRM</sub>, V<sub>RRM</sub></b>	<b>5600V 6000V 6500V</b>

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T <sub>j</sub> (°C)	VALUE			UNIT
				Min	Type	Max	
I <sub>PK</sub>	Pulse peak on-state current	Single pulse sine wave tp: 500µs	110			25	kA
I <sub>T(AV)</sub>	Mean on-state current	180° half sine wave 50Hz Double side cooled, T <sub>c</sub> =70°C	110			830	A
V <sub>DRM</sub> V <sub>RRM</sub>	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms	110	5600		6500	V
I <sub>DRM</sub> I <sub>RRM</sub>	Repetitive peak current	at V <sub>DRM</sub> at V <sub>RRM</sub>	110			200	mA
I <sub>TSM</sub>	Surge on-state current	10ms half sine wave	110			11.8	kA
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination	V <sub>R</sub> =0.6V <sub>RRM</sub>				696	A <sup>2</sup> s*10 <sup>3</sup>
V <sub>TM</sub>	Peak on-state voltage	I <sub>TM</sub> =1000A, F=24kN, tp=10ms	25			2.40	V
dv/dt	Critical rate of rise of off-state voltage	V <sub>DM</sub> =0.67V <sub>DRM</sub>	110			2000	V/µs
di/dt	Critical rate of rise of on-state current	V <sub>DM</sub> = 67%V <sub>DRM</sub> to4000A Gate pulse t <sub>r</sub> ≤0.5µs I <sub>GM</sub> =1.5A	110			3000	A/µs
Q <sub>rr</sub>	Recovery charge	I <sub>TM</sub> =1000A, tp=4000µs, di/dt=-20A/µs, V <sub>R</sub> =100V	110		2500		µC
I <sub>GT</sub>	Gate trigger current	V <sub>A</sub> =12V, I <sub>A</sub> =1A	25	40		300	mA
V <sub>GT</sub>	Gate trigger voltage			0.8		3.0	V
I <sub>H</sub>	Holding current			25		200	mA
I <sub>L</sub>	Latching current					1000	mA
V <sub>GD</sub>	Non-trigger gate voltage	V <sub>DM</sub> =67%V <sub>DRM</sub>	110			0.3	V
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	At 180° sine, double side cooled Clamping force 24kN				0.020	°C /W
R <sub>th(c-h)</sub>	Thermal resistance case to heat sink					0.005	
F <sub>m</sub>	Mounting force			19		26	kN
T <sub>vj</sub>	Junction temperature			-40		110	°C
T <sub>stg</sub>	Stored temperature			-40		120	°C
W <sub>t</sub>	Weight				440		g
Outline	KT50cT						

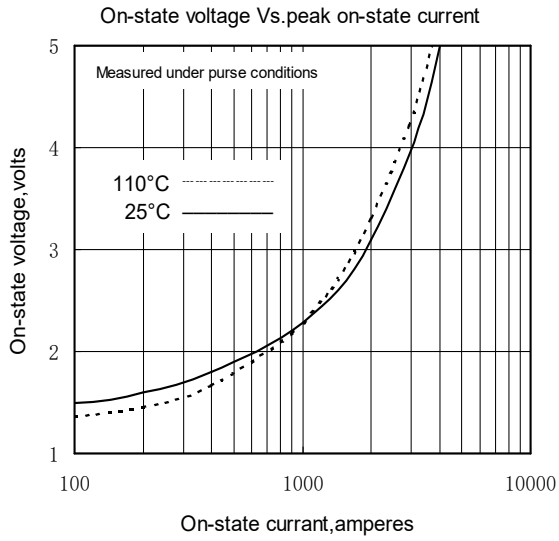


Fig1

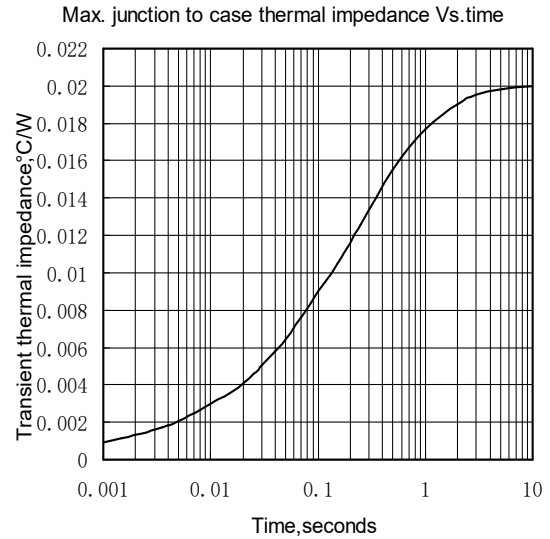


Fig2

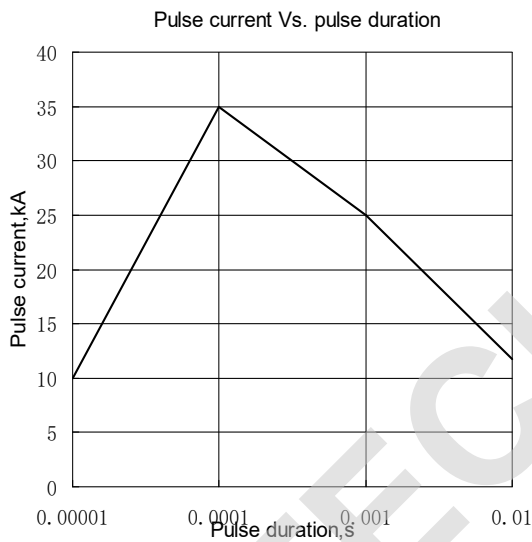


Fig3

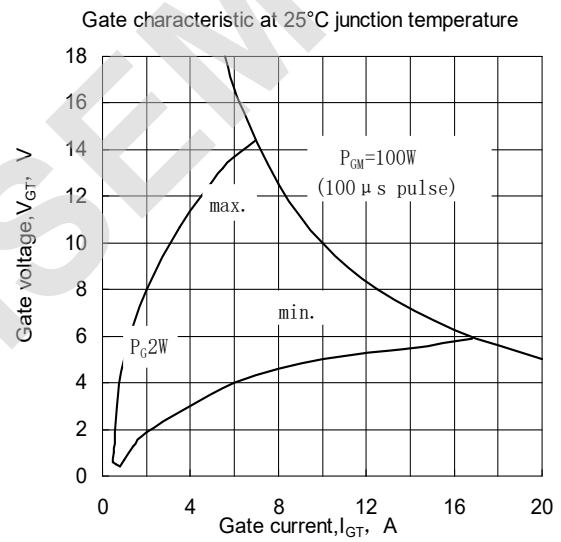


Fig4

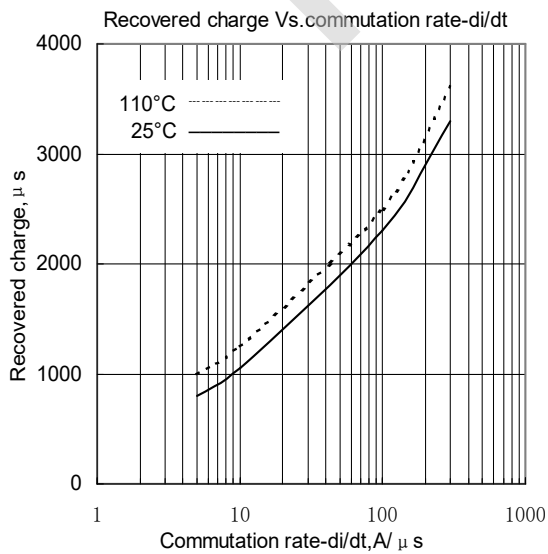


Fig5

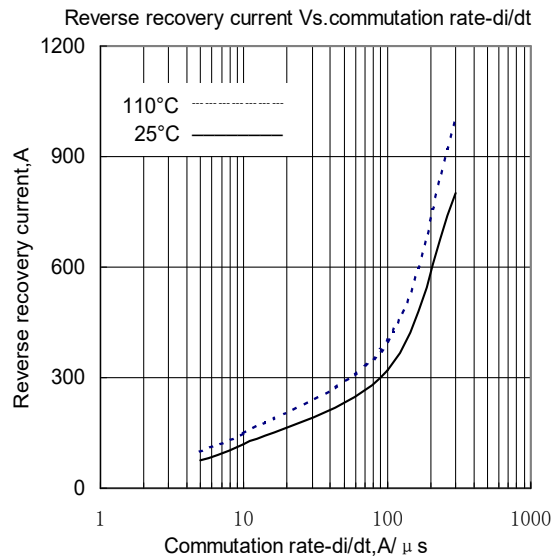
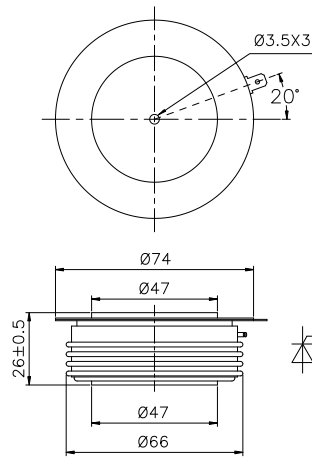


Fig6

Outline:



TECHSEM reserves the right to change specifications without notice.

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