

**B05-XX00**  
**Bi-DIRECTIONAL**  
**THYRISTOR**

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T <sub>j</sub> (°C)	VALUE			UNIT
				Min	Type	Max	
I <sub>T(RMS)</sub>	RMS current	50Hz sine wave Double side cooled, T <sub>HS</sub> =55°C	125			629	A
I <sub>T(RMS)</sub>	RMS current	50Hz sine wave Double side cooled, T <sub>HS</sub> =80°C	125			471	A
V <sub>RRM</sub>	Repetitive peak reverse voltage	V <sub>RRM</sub> tp=10ms V <sub>RSM</sub> = V <sub>DRM</sub> &V <sub>RRM</sub> +100V	125	500		1800	V
I <sub>RRM</sub>	Repetitive peak current	at V <sub>RRM</sub>	125			30	mA
I <sub>TSM</sub>	Surge on-state current	10ms half sine wave	125			2.5	KA
I <sup>2</sup> T	I <sup>2</sup> T for fusing coordination	V <sub>R</sub> =0.6V <sub>RRM</sub>				31	A <sup>2</sup> s*10 <sup>-3</sup>
V <sub>TO</sub>	Threshold voltage		125			0.99	V
r <sub>T</sub>	On-state slop resistance					1.80	mΩ
V <sub>TM</sub>	Peak on-state voltage	I <sub>TM</sub> =500A, F=7.0KN	125			1.89	V
dv/dt	Critical rate of rise of off-state voltage	V <sub>DM</sub> =0.67V <sub>DRM</sub>	125			50	V/μs
di/dt	Critical rate of rise of on-state current	From 67%V <sub>DRM</sub> to 1500A, Gate source 1.5A t <sub>r</sub> ≤0.5μs Repetitive	125			50	A/μs
I <sub>GT</sub>	Gate trigger current	V <sub>A</sub> =12V, I <sub>A</sub> =1A	25	20		200	mA
V <sub>GT</sub>	Gate trigger voltage			0.8		2.5	V
I <sub>H</sub>	Holding current			20		200	mA
R <sub>th(j-h)</sub>	Thermal resistance Junction to heatsink	At 180° sine double side cooled Clamping force 7.0KN				0.055	°C /W
F <sub>m</sub>	Mounting force			5.3		10	KN
T <sub>stg</sub>	Stored temperature			-40		140	°C
W <sub>t</sub>	Weight				80		g
Outline	KT25aT						

**Outline**

