

### Features :

- Two anti-parallel thyristors on one Si-wafer
- Hermetic metal cases with ceramic insulators
- Capsule packages for double sided cooling

### Typical Applications

- High power industrial and power transmission
- DC and AC motor control
- AC controllers

$I_{T(RMS)}$       **520A**  
 $V_{DRM}/V_{RRM}$     **500~1800V**  
 $I_{TSM}$             **5.0kA**  
 $I^2t$                 **125 A<sup>2</sup>s\*10<sup>3</sup>**



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,	125			730	A
						520	
V <sub>DRM</sub>	Repetitive peak reverse voltage	tp=10ms	125	500		1800	V
I <sub>DRM</sub>	Repetitive peak current	at V <sub>DRM</sub>	125			30	mA
I <sub>TSM</sub>	Surge on-state current	10ms half sine wave	125			5.0	kA
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination	V <sub>R</sub> =0.6V <sub>RRM</sub>				125	A <sup>2</sup> s*10 <sup>3</sup>
V <sub>TO</sub>	Threshold voltage		125			0.85	V
r <sub>T</sub>	On-state slope resistance					1.85	mΩ
V <sub>TM</sub>	Peak on-state voltage	I <sub>TM</sub> =450A, F=7.0kN	25			2.70	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	V <sub>DM</sub> = 67%V <sub>DRM</sub> to 800A, Gate pulse t <sub>r</sub> ≤ 0.5μs I <sub>GM</sub> =1.5A 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-c)</sub>	Thermal resistance Junction to case	double side cooled Clamping force 7.0kN				0.045	°C /W
R <sub>th(c-h)</sub>	Thermal resistance case to heat sink					0.010	
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:

