

**Features :**

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

**Typical Applications**

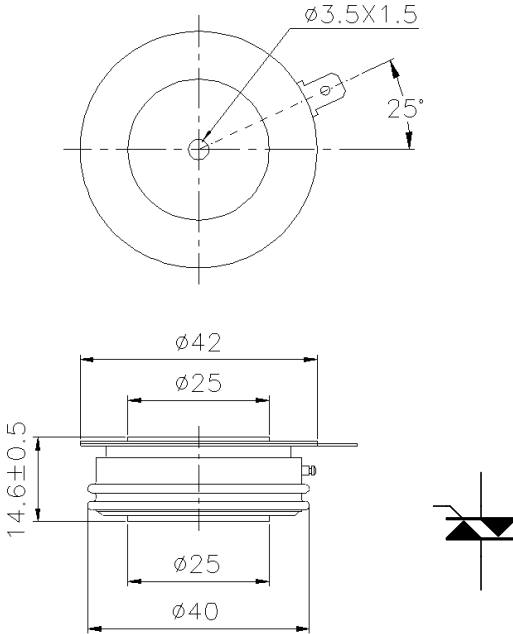
- n High power industrial and power transmissior
- n DC and AC motor control
- n AC controllers

**Part No. Y30KSE-KT25aT**

<b>I<sub>T(RMS)</sub></b>	<b>520A</b>	
<b>V<sub>DRM</sub>, V<sub>RRM</sub></b>	<b>500V</b>	<b>800V</b>
	<b>1000V</b>	<b>1200V</b>
	<b>1400V</b>	<b>1600V</b>
	<b>1800V</b>	

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>c</sub> =55°C	125			730	A
			T <sub>c</sub> =85°C				520	
V <sub>DRM</sub>	Repetitive peak reverse voltage	V <sub>DRM</sub> tp=10ms V <sub>DSM</sub> = V <sub>DRM</sub> +100V		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	
I <sub>L</sub>	Latching current					500	mA	
V <sub>GD</sub>	Non-trigger gate voltage	V <sub>DM</sub> =67%V <sub>DRM</sub>		125			0.3	V
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>vj</sub>	Junction temperature				-40		125	°C
T <sub>stg</sub>	Stored temperature				-40		140	°C
W <sub>t</sub>	Weight					80		g
Outline	KT25aT							

Outline:



TECHSEM reserves the right to change specifications without notice.