

**Features:**

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

**Typical Applications**

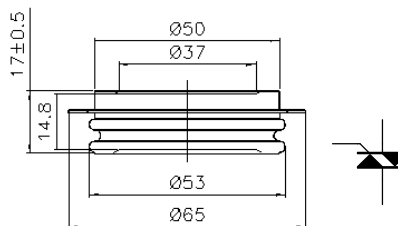
- n High power industrial and power transmissior
- n DC and AC motor control
- n AC controllers

**Part No. Y40KSEA-KA37**

<b>I<sub>T(RMS)</sub></b>	<b>830A</b>
<b>V<sub>DRM</sub>, V<sub>RRM</sub></b>	<b>500V 800V</b>
	<b>1000V 1200V</b>
	<b>1400V 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 T <sub>C</sub> =85°C	125		1210 830	A
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		50	mA
I <sub>TSM</sub>	Surge on-state current	10ms half sine wave		125		7.8	kA
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination	V <sub>R</sub> =0.6V <sub>RRM</sub>				304	A <sup>2</sup> s*10 <sup>3</sup>
V <sub>TO</sub>	Threshold voltage			125		1.00	V
r <sub>T</sub>	On-state slope resistance					0.85	mΩ
V <sub>TM</sub>	Peak on-state voltage	I <sub>TM</sub> =1200A, F=18kN		125		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 1000A, 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			25	20	350	mA
V <sub>GT</sub>	Gate trigger voltage	V <sub>A</sub> =12V, I <sub>A</sub> =1A			0.8	3.5	V
I <sub>H</sub>	Holding current				20	400	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 18kN				0.030	°C /W
R <sub>th(c-h)</sub>	Thermal resistance case to heat sink					0.008	
F <sub>m</sub>	Mounting force				15	20	kN
T <sub>vj</sub>	Junction temperature				-40	125	°C
T <sub>stg</sub>	Stored temperature				-40	140	°C
W <sub>t</sub>	Weight					200	g
Outline	KA37						

**Outline:**



TECHSEM reserves the right to change specifications without notice.