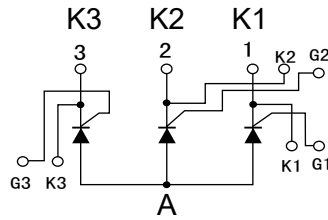
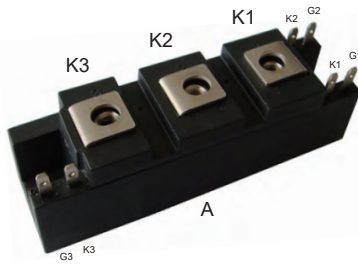
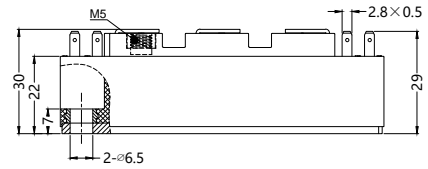


# 3TA130GK04NB

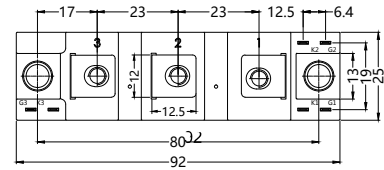
## Three Phase Thyristor Module (Half Bridge)



Dimensions in mm (1mm = 0.0394")



Type	V <sub>RSM</sub> V	V <sub>RSM</sub> V
3TA130GK03NB	400	300
3TA130GK04NB	500	400
3TA130GK06NB	700	600



Symbol	Test Conditions	Maximum Ratings	Unit
I <sub>T(AV)</sub> I <sub>T(RMS)</sub>	Single phase, half wave, 180° conduction, T <sub>c</sub> =114°C	130 204	A
I <sub>TSM</sub>	1/2cycle, 50Hz/60Hz, peak value, non-repetitive	3800/4200	A
i <sup>2</sup> t		162000	A <sup>2</sup> s
P <sub>GM</sub> P <sub>G(AV)</sub>		10 1	W
I <sub>FGM</sub>		3	A
V <sub>FGM</sub> V <sub>RGM</sub>		10 5	V
di/dt	I <sub>G</sub> =150mA, T <sub>j</sub> =25°C, V <sub>D</sub> =1/2V <sub>DRM</sub> , di <sub>G</sub> /dt=1A/us	60	A/us
T <sub>vj</sub> T <sub>vJM</sub> T <sub>stg</sub>		-30...+125 125 -30...+125	°C
M <sub>s</sub> M <sub>t</sub>	to heatsink M6 to terminals M5	3 ~ 5 2.5 ~ 5	Nm
Weight		140	g

**Sirectifier®**

# 3TA130GK04NB

## Three Phase Thyristor Module (Half Bridge)

Symbol	Test Conditions	min.	typ.	max.	Unit
<b>I<sub>DRM</sub></b> <b>I<sub>RDM</sub></b>	at V <sub>DRM</sub> , single phase, half wave, T <sub>j</sub> =125°C			25 25	mA
<b>V<sub>TM</sub></b>	On-State Current I <sub>TM</sub> =390A, T <sub>j</sub> =25°C Inst. measurement			1.25	V
<b>I<sub>GT</sub></b> <b>V<sub>GT</sub></b>	T <sub>j</sub> =25°C, I <sub>T</sub> =1A, V <sub>D</sub> =6V			150 1.50	mA V
<b>V<sub>GD</sub></b>	T <sub>j</sub> =125°C, V <sub>D</sub> =1/2V <sub>DRM</sub>	0.25			V
<b>t<sub>gt</sub></b>	I <sub>T</sub> =100A, I <sub>G</sub> =200mA, T <sub>j</sub> =25°C, V <sub>D</sub> =1/2V <sub>DRM</sub> , di <sub>G</sub> /dt=1A/us			10	us
<b>dv/dt</b>	T <sub>j</sub> =125°C, V <sub>D</sub> =2/3V <sub>DRM</sub> , Exponential wave	150			V/us
<b>I<sub>H</sub></b>	T <sub>j</sub> =25°C		100		mA
<b>R<sub>thJC</sub></b>	Junction to case (1/3 Module)			0.20	°C/W

### FEATURES

- \* International standard package
- \* Copper base plate
- \* Glass passivated chips
- \* RoHS compliant

### APPLICATIONS

- \* Welding Machine Power Supply
- \* DC Power Supply

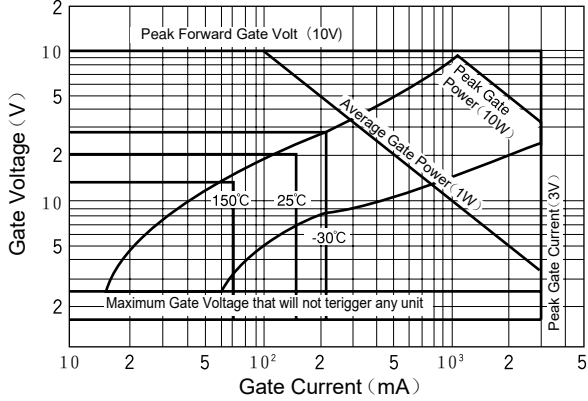
### ADVANTAGES

- \* Space and weight savings
- \* Simple mounting with two screws
- \* Improved temperature and power cycling
- \* Reduced protection circuits

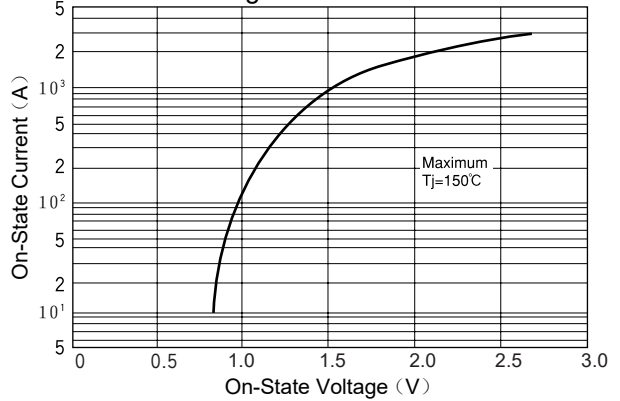
# 3TA130GK04NB

## Three Phase Thyristor Module (Half Bridge)

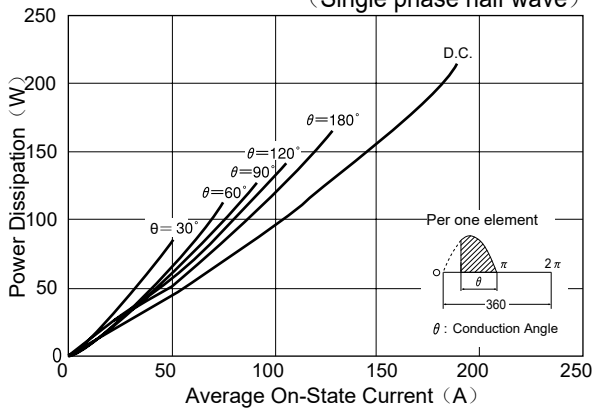
Gate Characteristics



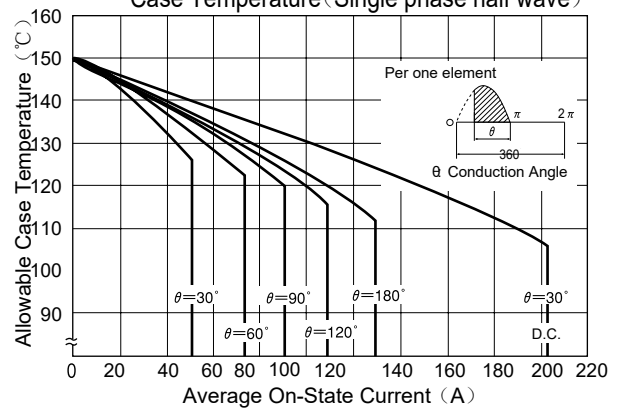
On-State Voltage max



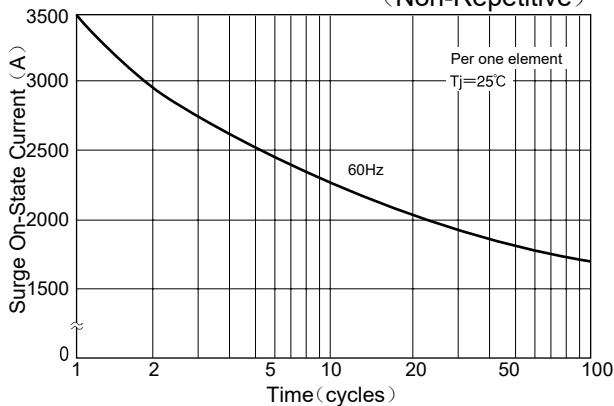
Average On-State Current Vs Power Dissipation (Single phase half wave)



Average On-State Current Vs Maximum Allowable Case Temperature (Single phase half wave)



Surge On-State Current Rating (Non-Repetitive)



Transient Thermal Impedance

