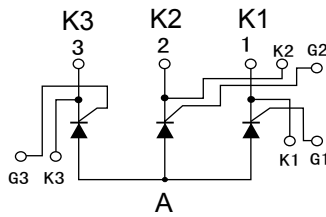
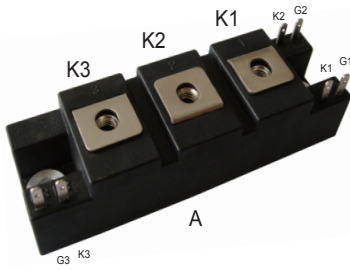
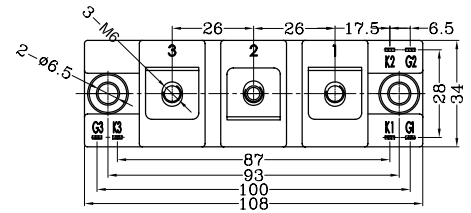
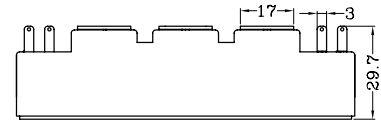


# 3TA250GKxxNB

## Three Phase Thyristor Module (Half Bridge)



Dimensions in mm (1mm = 0.0394")



Type	$V_{RSM}$ V	$V_{RRM}$ V
3TA250GK03NB	400	300
3TA250GK04NB	500	400



Symbol	Test Conditions	Maximum Ratings	Unit
$I_{T(AV)}$ $I_{T(RMS)}$	Single phase, half wave, 180°C conduction, $T_c=114^\circ\text{C}$	250 392	A
$I_{TSM}$	1/2cycle, 50Hz/60Hz, peak value, non-repetitive	6750/7420	A
$I^2t$		620000	$\text{A}^2\text{s}$
$P_{GM}$ $P_{G(AV)}$		10 1	W
$I_{FGM}$		3	A
$V_{FGM}$ $V_{RGM}$		10 5	V
$di/dt$	$I_G=150\text{mA}$ , $T_j=25^\circ\text{C}$ , $V_D=1/2V_{DRM}$ , $dI_G/dt=1\text{A/us}$	60	A/us
$T_{VJ}$ $T_{VJM}$ $T_{stg}$		-30...+150 150 -30...+125	$^\circ\text{C}$
$M_s$ $M_t$	to heatsink M6 to terminals M6	3 ~ 5 2.5 ~ 5	Nm
Weight		210	g

# 3TA250GKxxNB

## 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> =150°C			80 80	mA
<b>V<sub>TM</sub></b>	On-State Current 750A, T <sub>j</sub> =25°C Inst. measurement			1.25	V
<b>I<sub>GT</sub></b>	T <sub>j</sub> =25°C, I <sub>T</sub> =1A, V <sub>D</sub> =6V			200	mA
<b>V<sub>GD</sub></b>	T <sub>j</sub> =150°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> =150°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		150		mA
<b>R<sub>thJC</sub></b>	Junction to case (1/3 Module)			0.09	°C/W

### FEATURES

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

### 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

# 3TA250GKxxNB

## Three Phase Thyristor Module (Half Bridge)

