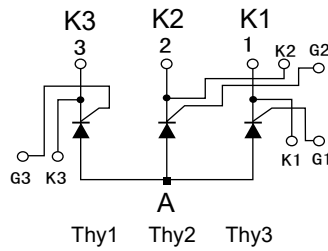
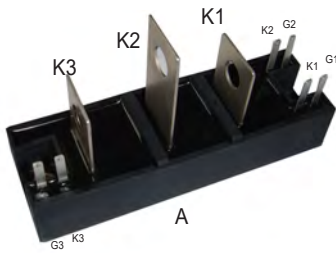
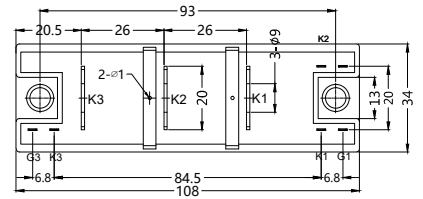
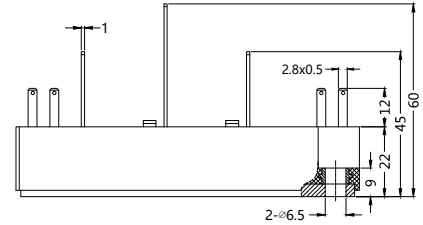


3TA251GKxxNB

Three Phase Thyristor Module (Half Bridge)



Dimensions in mm (1mm = 0.0394")



Type	V_{RSM} V	V_{RRM} V
3TA251GK03NB	400	300
3TA251GK04NB	500	400
3TA251GK06NB	700	600



Symbol	Test Conditions	Maximum Ratings	Unit
$I_{T(AV)}$ $I_{T(RMS)}$	Single phase, half wave, 180° 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	A^2s
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...+125 125 -30...+125	$^\circ\text{C}$
M_s M_t	to heatsink M6 to terminals M6	3 ~ 5 2.5 ~ 5	Nm
Weight		210	g

3TA251GKxxNB

Three Phase Thyristor Module (Half Bridge)

Symbol	Test Conditions	min.	typ.	max.	Unit
I_{DRM} I_{RRM}	at V _{DRM} , single phase, half wave, T _j =125°C			80 80	mA
V_{TM}	On-State Current 750A, T _j =25°C Inst. measurement			1.25	V
I_{GT}	T _j =25°C, I _T =1A, V _D =6V			200	mA
V_{GD}	T _j =125°C, V _D =1/2V _{DRM}	0.25			V
t_{gt}	I _T =100A, I _G =200mA, T _j =25°C, V _D =1/2V _{DRM} , di _G /dt=1A/us			10	us
dv/dt	T _j =125°C, V _D =2/3V _{DRM} , Exponential wave	150			V/us
I_H	T _j =25°C		150		mA
R_{thJC}	Junction to case (1/3 Module)			0.09	°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

3TA251GKxxNB

Three Phase Thyristor Module (Half Bridge)

