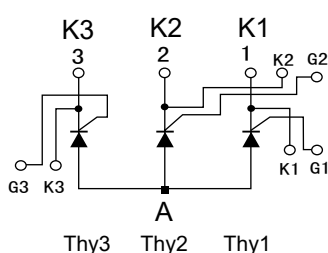
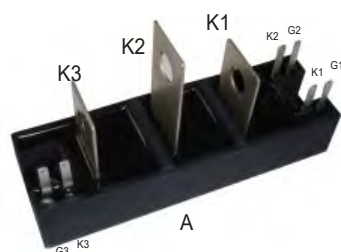
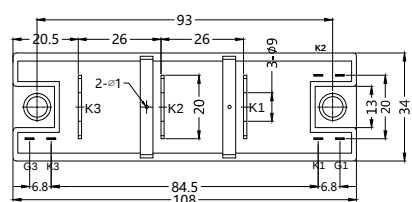
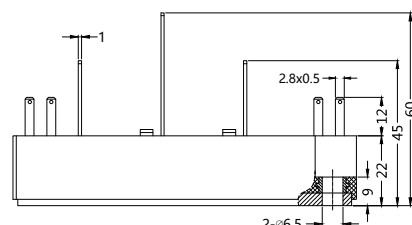


3TA151GKXXNB

Three Phase Thyristor Module (Half Bridge)



Dimensions in mm (1mm = 0.0394")



Type	V_{RSM} V	V_{RRM} V
3TA151GK03NB	400	300
3TA151GK04NB	500	400
3TA151GK06NB	700	600



Symbol	Test Conditions	Maximum Ratings	Unit
$I_{T(AV)}$ $I_{T(RMS)}$	Single phase, half wave, 180°C conduction, $T_c=121^\circ\text{C}$	150 230	A
I_{TSM}	1/2cycle, 50Hz/60Hz, peak value, non-repetitive	3000/3400	A
I^2t		38000	A^2s
P_{GM} $P_{G(AV)}$		5 0.5	W
I_{FGM}		2	A
V_{FGM} V_{RGM}		10 5	V
di/dt	$I_G=200\text{mA}$, $T_j=25^\circ\text{C}$, $V_D=1/2V_{DRM}$, $dI_G/dt=1\text{A/us}$	100	A/us
T_{VJ} T_{VJM} T_{stg}		-40...+150 150 -40...+125	$^\circ\text{C}$
M_s M_t	to heatsink M6 to terminals M8	1.96 ~ 2.94 2.50 ~ 5.00	Nm
Weight		200	g

Sirectifier®

3TA151GKXXNB

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 =150°C			40 40	mA
V_{TM}	On-State Current 450A, T _j =25°C Inst. measurement			1.20	V
I_{GT}	T _j =25°C, I _T =1A, V _D =6V			150	mA
V_{GD}	T _j =150°C, V _D =1/2V _{DRM}			0.25	V
t_{gt}	I _T =200A, I _G =200mA, T _j =25°C, V _D =1/2V _{DRM} , dI _G /dt=1A/us			10	us
dv/dt	T _j =150°C, V _D =2/3V _{DRM} , Exponential wave			200	V/us
I_H	T _j =25°C			70	mA
R_{thJC}	Junction to case (1/3 Module)			0.15	°C/W

FEATURES

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

APPLICATIONS

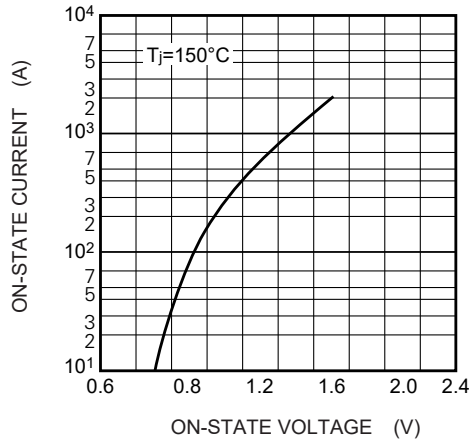
- * Welding Machine Power Supply
- * DC Power Supply

ADVANTAGES

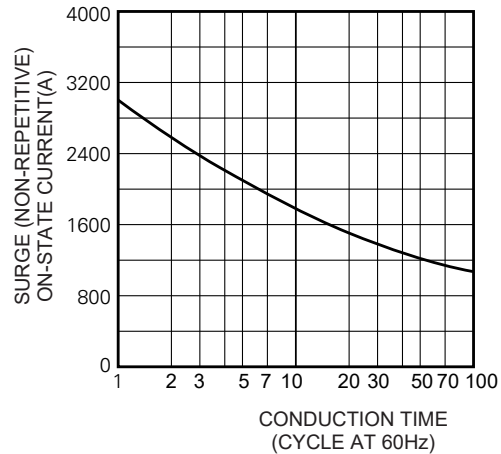
- * Space and weight savings
- * Simple mounting with two screws
- * Improved temperature and power cycling
- * Reduced protection circuits

3TA151GKXXNB

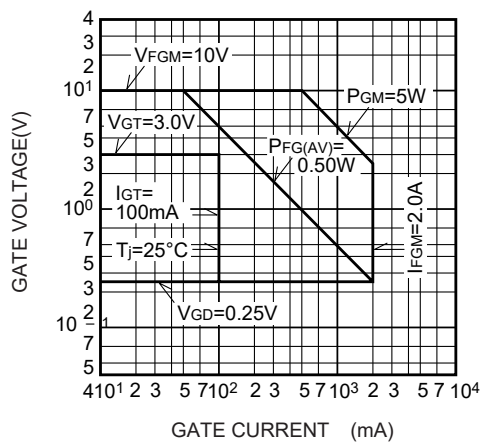
Three Phase Thyristor Module (Half Bridge)



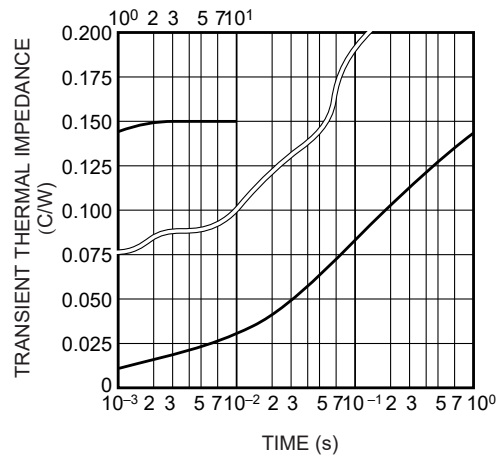
MAXIMUM ON-STATE CHARACTERISTIC



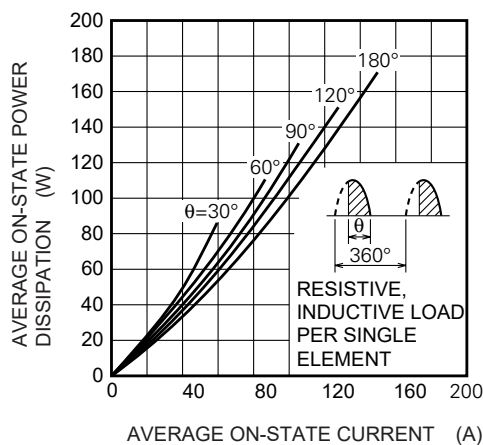
RATED SURGE (NON-REPETITIVE) ON-STATE CURRENT



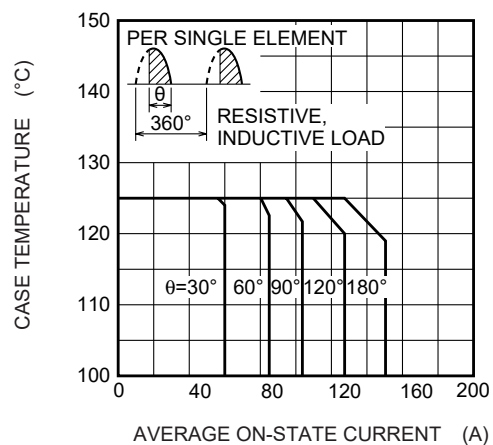
GATE CHARACTERISTICS



MAXIMUM TRANSIENT THERMAL IMPEDANCE (JUNCTION TO CASE)



MAXIMUM AVERAGE ON-STAGE POWER DISSIPATION (SINGLE PHASE HALF WAVE)



LIMITING VALUE OF THE AVERAGE ON-STATE CURRENT (SINGLE PHASE HALF WAVE)

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