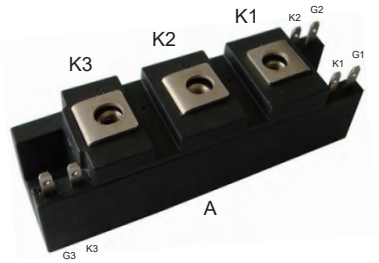
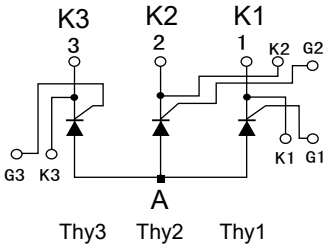
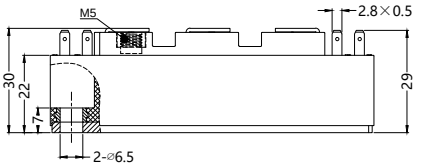
3TA100GK04NB-B

Three Phase Thyristor Module (Half Bridge)

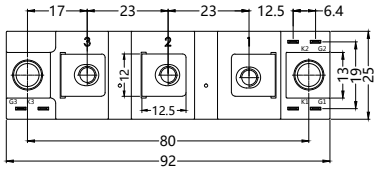




Dimensions in mm (1mm = 0.0394")



Type	V_{RSM}	V_{RRM}
	V	V
3TA100GK03NB-B	400	300
3TA100GK04NB-B	500	400
3TA100GK06NB-B	700	600



Symbol	Test Conditions	Maximum Ratings	Unit
$I_{T(AV)}$ $I_{T(RMS)}$	Single phase, half wave, 180°C conduction, T_C=114°C	100 157	A
I_{TSM}	1/2cycle, 50Hz/60Hz, peak value, non-repetitive	3200/3500	A
I^2t		51000	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=150mA, T_j=25°C, V_D=1/2V_{DRM}, dI_G/dt=1A/us	60	A/us
T_{VJ} T_{VJM} T_{stg}		-30...+150 150 -30...+125	°C
Ms Mt	to heatsink M6 to terminals M5	3 ~ 5 2.5 ~ 5	Nm
Weight		169	g

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3TA100GK04NB-B

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			15 15	mA
V_{TM}	On-State Current 314A, T_j=25°C Inst. measurement			1.25	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
tgt	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=150°C, V_D=2/3V_{DRM}, Exponential wave	150			V/us
I_H	T_j=25°C		100		mA
R_{thJC}	Junction to case (1/3 Module)			0.30	°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

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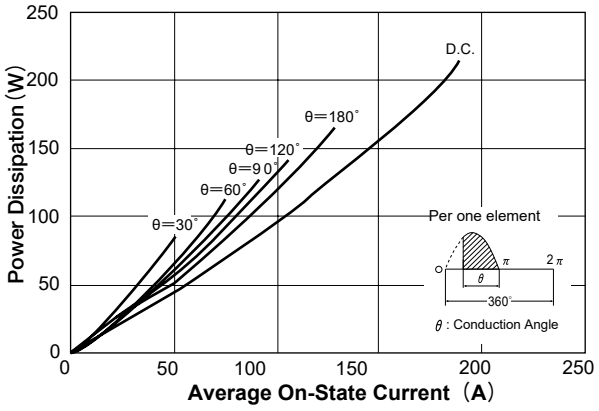
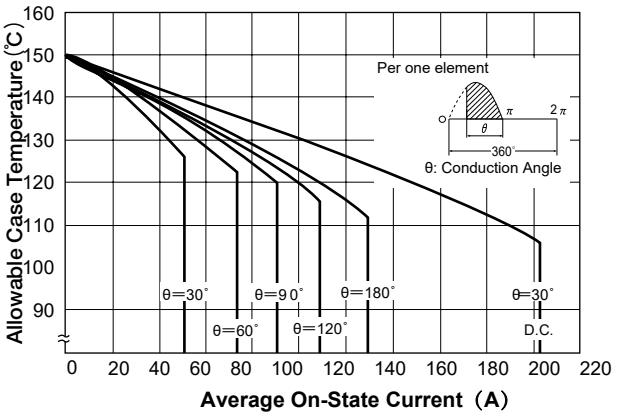
3TA100GK04NB-B

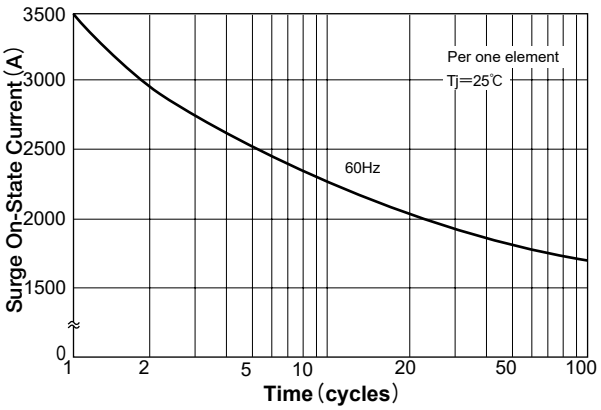
Three Phase Thyristor Module (Half Bridge)



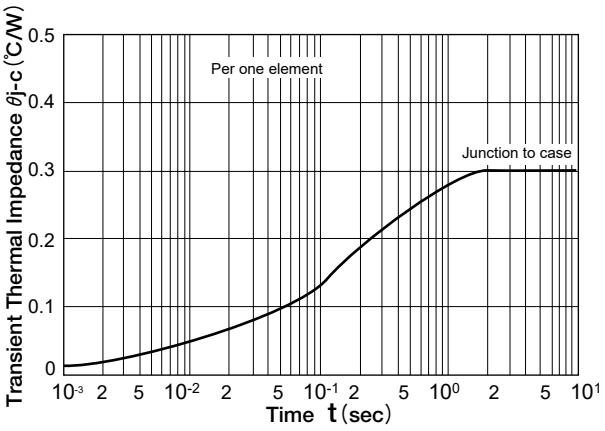
Average On-State Current Vs Power Dissipation



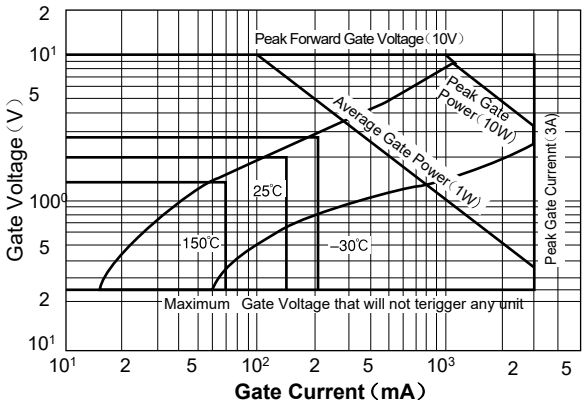
Average On-State Current Vs Maximum Allowable Case Temperature（Single phase half wave）



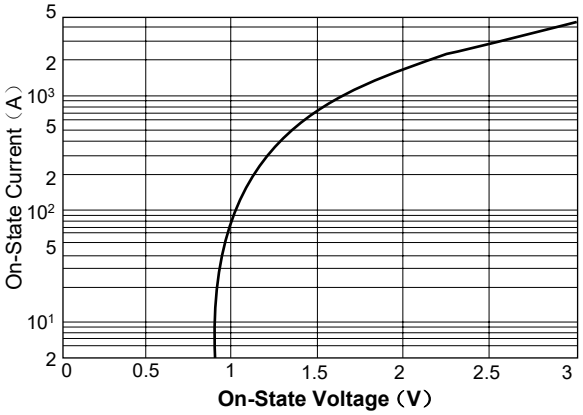
Surge On-State Current Rating（Single phase half wave）（Non-Repetitive）



Transient Thermal Impedance



Gate Characteristics



On-State Voltage max

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