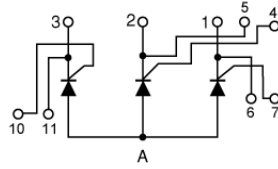
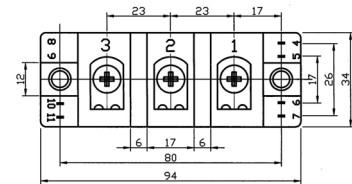
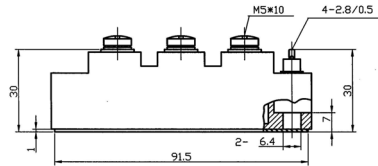


3TA130GKxxNB

Three Phase Half Bridge



Dimensions in mm (1mm = 0.0394")



Type	V_{RSM} V	V_{RRM} V
3TA130GK03NB	400	300
3TA130GK04NB	500	400

Symbol	Test Conditions	Maximum Ratings	Unit
$I_{T(AV)}$ $I_{T(RMS)}$	Single phase, half wave, 180°C conduction, $T_c=112^\circ\text{C}$	130 204	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	$I_G=200\text{mA}$, $T_j=25^\circ\text{C}$, $V_D=1/2V_{DRM}$, $dI_G/dt=1\text{A}/\mu\text{s}$	50	$\text{A}/\mu\text{s}$
T_{VJ} T_{VJM} T_{stg}		-30...+150 150 -30...+125	$^\circ\text{C}$
M_s M_t	to heatsink M6 to terminals M5	3 ~ 5 2.5 ~ 5	Nm
Weight		160	g

3TA130GKxxNB

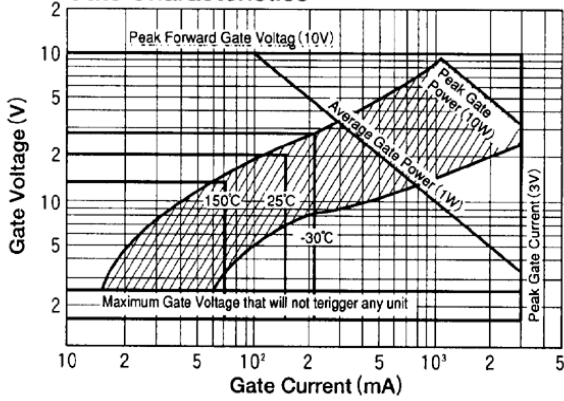
Three Phase Half Bridge

Symbol	Test Conditions	min.	typ.	max.	Unit
I_{DRM} I_{RDM}	at V _{DRM} , single phase, half wave, T _j =150°C			30 30	mA
V_{TM}	On-State Current 410A, T _j =25°C Inst. measurement			1.20	V
I_{GT} V_{GT}	T _j =25°C, I _T =1A, V _D =6V			150 2	mA V
V_{GD}	T _j =150°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 =150°C, V _D =2/3V _{DRM} , Exponential wave	500			V/us
I_H	T _j =25°C		70		mA
R_{thJC}	Junction to case (1/3 Module)			0.2	°C/W

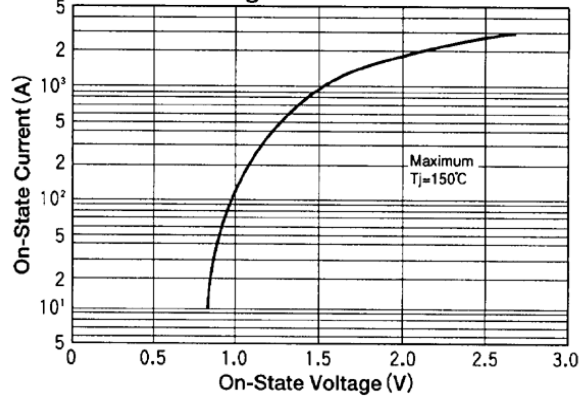
3TA130GKxxNB

Three Phase Half Bridge

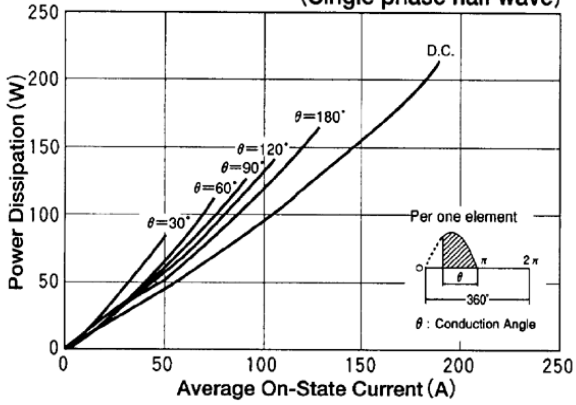
Gate Characteristics



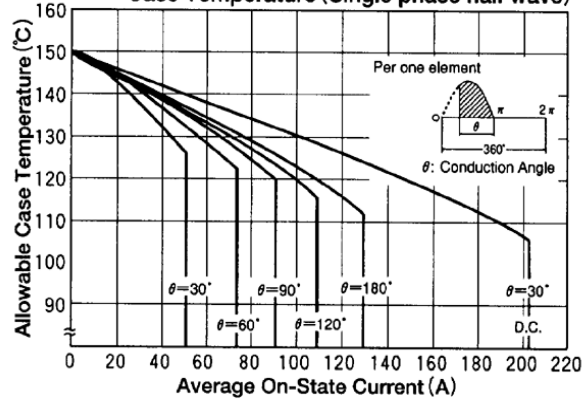
On-State Voltage max



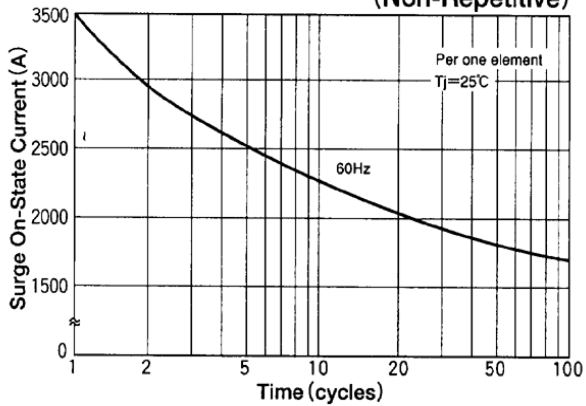
Average On-State Current Vs Power Dissipation (Single phase half wave)



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



Surge On-State Current Rating (Non-Repetitive)



Transient Thermal Impedance

