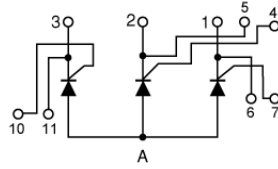
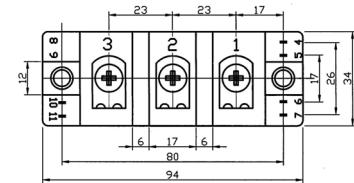
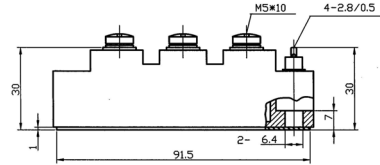


# 3TA80GKxxNB

## Three Phase Half Bridge



Dimensions in mm (1mm = 0.0394")



Type	V <sub>RSM</sub> V	V <sub>RSM</sub> V
3TA80GK03NB	400	300
3TA80GK04NB	500	400

Symbol	Test Conditions	Maximum Ratings	Unit
I <sub>T(AV)</sub> I <sub>T(RMS)</sub>	Single phase, half wave, 180°C conduction, T <sub>c</sub> =116°C	80 125	A
I <sub>TSM</sub>	1/2cycle, 50Hz/60Hz, peak value, non-repetitive	2280/2500	A
I <sup>2</sup> t		26000	A <sup>2</sup> s
P <sub>GM</sub> P <sub>G(AV)</sub>		10 1	W
I <sub>FGM</sub>		3	A
V <sub>FGM</sub> V <sub>RGM</sub>		10 5	V
di/dt	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	50	A/us
T <sub>VJ</sub> T <sub>VJM</sub> T <sub>stg</sub>		-30...+150 150 -30...+125	°C
Ms Mt	to heatsink M6 to terminals M5	3 ~ 5 2.5 ~ 5	Nm
Weight		160	g

# 3TA80GKxxNB

## Three Phase 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			12 12	mA
<b>V<sub>TM</sub></b>	On-State Current 240A, T <sub>j</sub> =25°C Inst. measurement			1.20	V
<b>I<sub>GT</sub>/V<sub>GT</sub></b>	T <sub>j</sub> =25°C, I <sub>T</sub> =1A, V <sub>D</sub> =6V			75	mA/V
<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> =80A, 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	500			V/us
<b>I<sub>H</sub></b>	T <sub>j</sub> =25°C		100		mA
<b>R<sub>thJC</sub></b>	Junction to case (1/3 Module)			0.35	°C/W

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## Three Phase Half Bridge

