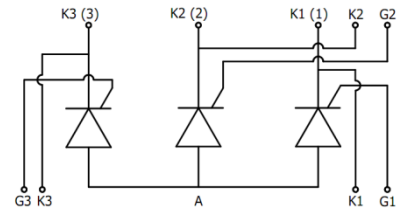


## Non-isolated Thyristor Module, 80 Amps

### Features

- Low voltage three-phase
- High surge current capability
- Easy construction
- Non-isolated
- Mounting base as common anode



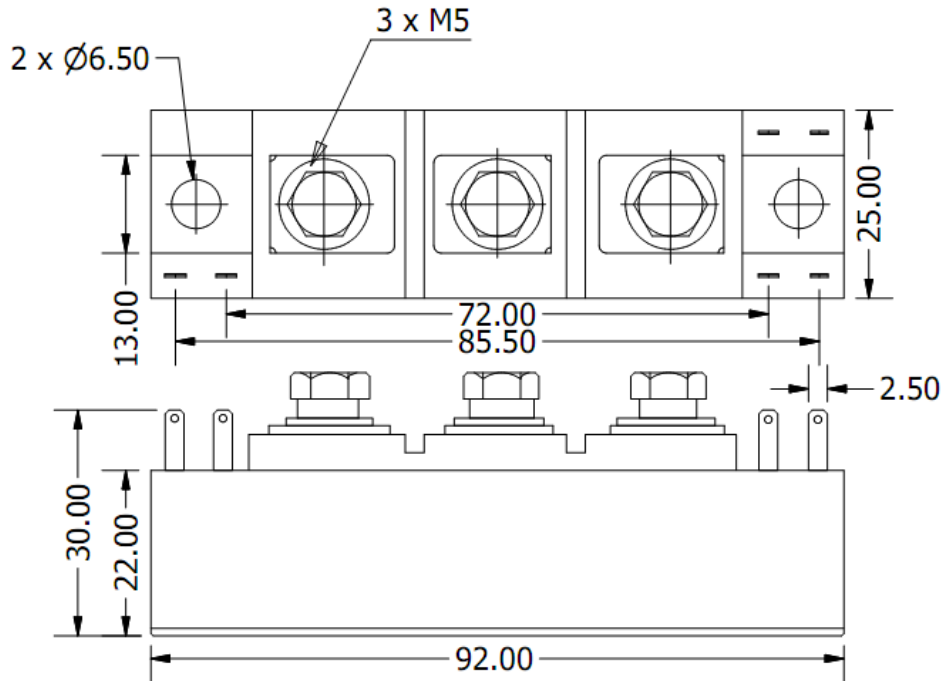
Voltage Ratings ( $T_C = 25^\circ\text{C}$ unless otherwise specified)				
Parameter	Symbol	N3T80A30	N3T80A40	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	300	400	V
Maximum non-repetitive peak reverse voltage	$V_{RSM}$	360	480	V
Maximum repetitive peak off-state voltage	$V_{DRM}$	300	400	V

Electrical Characteristics ( $T_C = 25^\circ\text{C}$ unless otherwise specified)				
Parameter	Conditions	Symbol	Values	Units
Average on-state current	Single phase, half-wave, 180° conduction	$I_{T(AV)}$	80	A
R.M.S. on-state current		$I_{T(RMS)}$	125	A
On-state surge current	half cycle, 50Hz, peak value, non-repetitive	$I_{TSM}$	2500	A
$I^2t$ required for fusing		$I^2t$	31250	$\text{A}^2\text{S}$
Peak gate current		$I_{GM}$	3	A
Peak gate voltage (forward)		$V_{FGM}$	10	V
Peak gate voltage (reverse)		$V_{RGM}$	5	V
Critical rate of rise of on-state current	$I_G = 200\text{mA}, T_J = 25^\circ\text{C}$	$di/dt$	50	$\text{A}/\mu\text{s}$
Critical rate of rise of off-state voltage	$T_J = 150^\circ\text{C}$	$dv/dt$	50	$\text{V}/\mu\text{s}$
Holding current	$T_J = 25^\circ\text{C}$	$I_H$	100	mA
Peak on-state voltage	$T_J = 25^\circ\text{C}$	$V_{TM}$	1.20	V
Repetitive Peak Reverse Current	$T_J = 150^\circ\text{C}$ , single phase, half wave	$I_{RRM}$	12	mA
Gate Trigger Current	$T_J = 25^\circ\text{C}, I_T = 1\text{A}$	$I_{GT}$	150	mA
Gate Trigger Voltage	$T_J = 25^\circ\text{C}, I_T = 1\text{A}$	$V_{GT}$	2	V

Thermal & Mechanical Specifications ( $T_C = 25^\circ\text{C}$ unless otherwise specified)			
Parameter	Symbol	Values	Units
Operating junction temperature range	$T_J$	-30 to +150	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-30 to +125	$^\circ\text{C}$
Thermal resistance, junction to case	$R_{th(jc)}$	0.35	$^\circ\text{C}/\text{W}$
Weight	W	180	g

## Package Outline

(All dimensions in mm)



## Ordering Table

N3T	80	A	40
1	2		3

- 1 – Half-bridge Thyristor Module
- 2 - Current Rating =  $I_{T(AV)}$
- 3 – Voltage =  $V_{RRM}$  (Voltage Ratings Table)