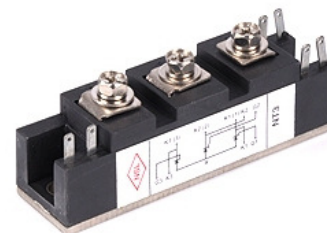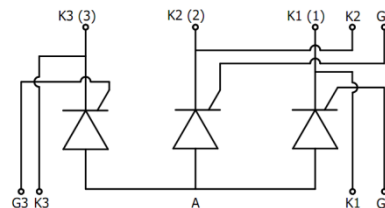## Non-isolated Thyristor Module, 100 Amps

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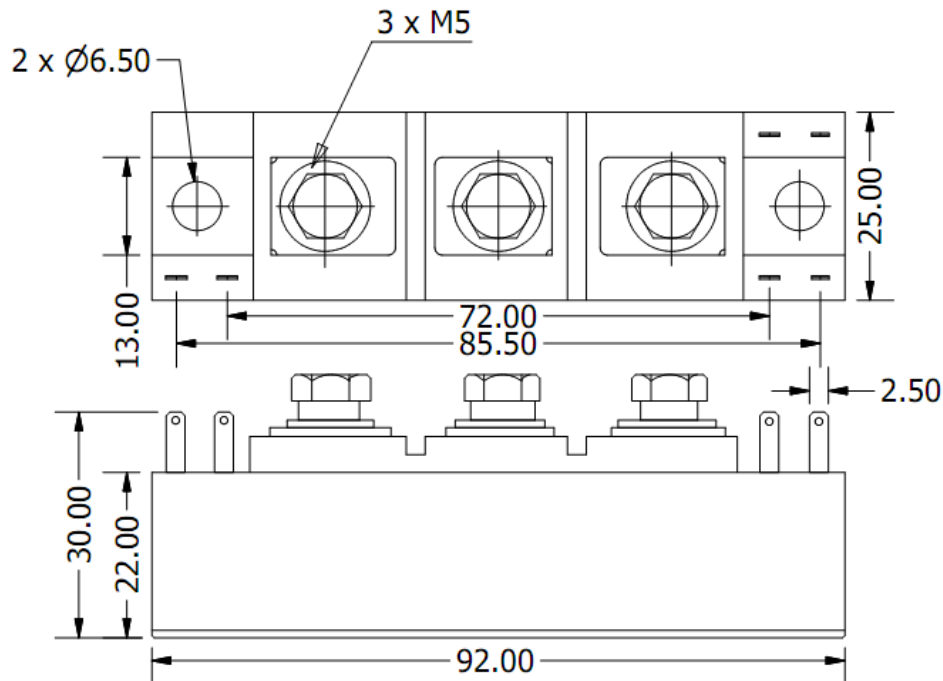- Mounting base as common anode

Voltage Ratings ($T_C = 25^OC$ unless otherwise specified)				
Parameter	**Symbol**	**N3T100A30**	**N3T100A40**	**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 ($T_C = 25^OC$ unless otherwise specified)				
Parameter	**Conditions**	**Symbol**	**Values**	**Units**
Average on-state current	Single phase, half-wave, 180^0 conduction	$I_{T(AV)}$	100	A
R.M.S. on-state current		$I_{T(RMS)}$	157	A
On-state surge current	half cycle, 50Hz, peak value, non-repetitive	I_{TSM}	3500	A
I^2t required for fusing		I^2t	61250	A^2S
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	$I_G = 200mA$, $T_J = 25^0C$	di/dt	50	A/µs
Critical rate of rise of off-state voltage	$T_J = 150^0C$	dv/dt	50	V/µs
Holding current	$T_J = 25^0C$	I_H	70	mA
Peak on-state voltage	$T_J = 25^0C$	V_{TM}	1.20	V
Repetitive Peak Reverse Current	$T_J = 150^0C$, single phase, half wave	I_{RRM}	15	mA
Gate Trigger Current	$T_J = 25^OC$, $I_T = 1A$	I_{GT}	150	mA
Gate Trigger Voltage	$T_J = 25^OC$, $I_T = 1A$	V_{GT}	2	V

Thermal & Mechanical Specifications ($T_C = 25^OC$ unless otherwise specified)			
Parameter	**Symbol**	**Values**	**Units**
Operating junction temperature range	T_J	-40 to +150	^0C
Storage temperature range	T_{STG}	-40 to +125	^0C
Thermal resistance, junction to case	$R_{th(JC)}$	0.30	$^0C/W$
Weight	W	180	g

Package Outline

(All dimensions in mm)

Ordering Table

N3T	100	A	40
1	2		3

1 – Half-bridge Thyristor Module

2 - Current Rating = $I_{T(AV)}$

3 – Voltage = V_{RRM} (Voltage Ratings Table)