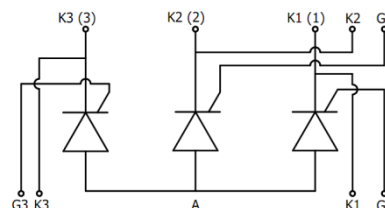


## Non-isolated Thyristor Module, 100 Amps

**Features**

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

**Voltage Ratings** ( $T_C = 25^\circ\text{C}$  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** ( $T_C = 25^\circ\text{C}$  unless otherwise specified)

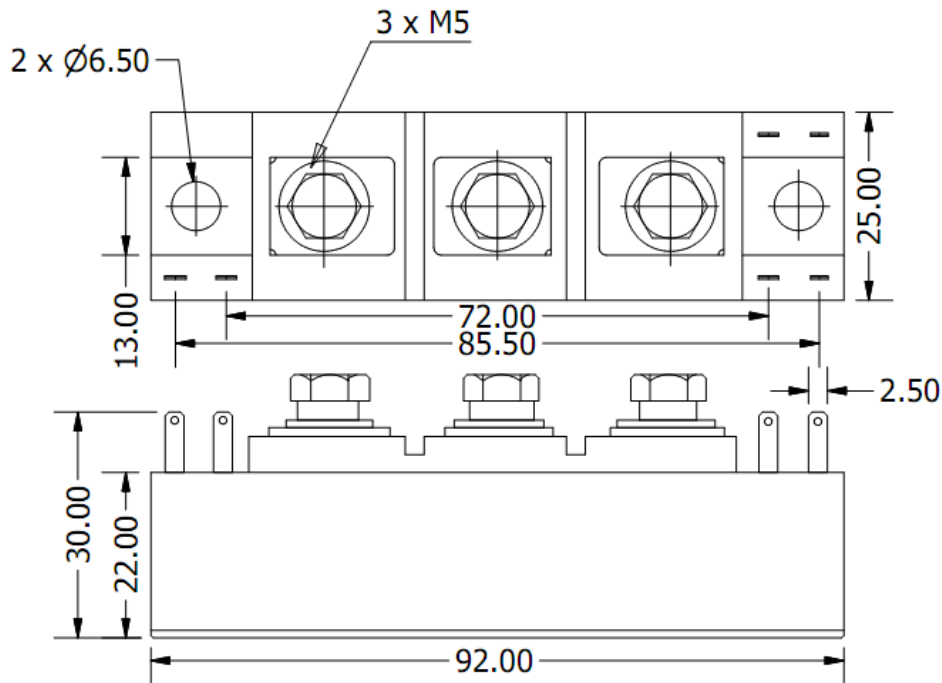
Parameter	Conditions	Symbol	Values	Units
Average on-state current	Single phase, half-wave, 180° conduction	$I_{T(AV)}$	100	A
R.M.S. on-state current		$I_{T(RMS)}$	157	A
On-state surge current	half cycle, 50Hz, peak value, non-repetitive	$I_{TSM}$	3500	A
$I^2t$ required for fusing		$I^2t$	61250	$\text{A}^2\text{S}$
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	$T_J = 25^\circ\text{C}$	$I_H$	70	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	$I_{RRM}$	15	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	$T_J$	-40 to +150	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-40 to +125	$^\circ\text{C}$
Thermal resistance, junction to case	$R_{th(jc)}$	0.30	$^\circ\text{C}/\text{W}$
Weight	$W$	180	g

**Package Outline**

*(All dimensions in mm)*



**Ordering Table**

<i>N3T</i>	<i>100</i>	<i>A</i>	<i>40</i>
1	2		3

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