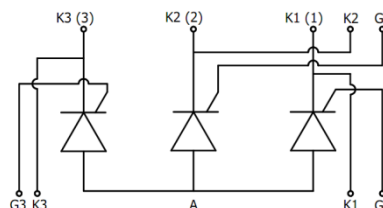


Non-isolated Thyristor Module, 130 Amps

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 | N3T130A30 | N3T130A40 | 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)

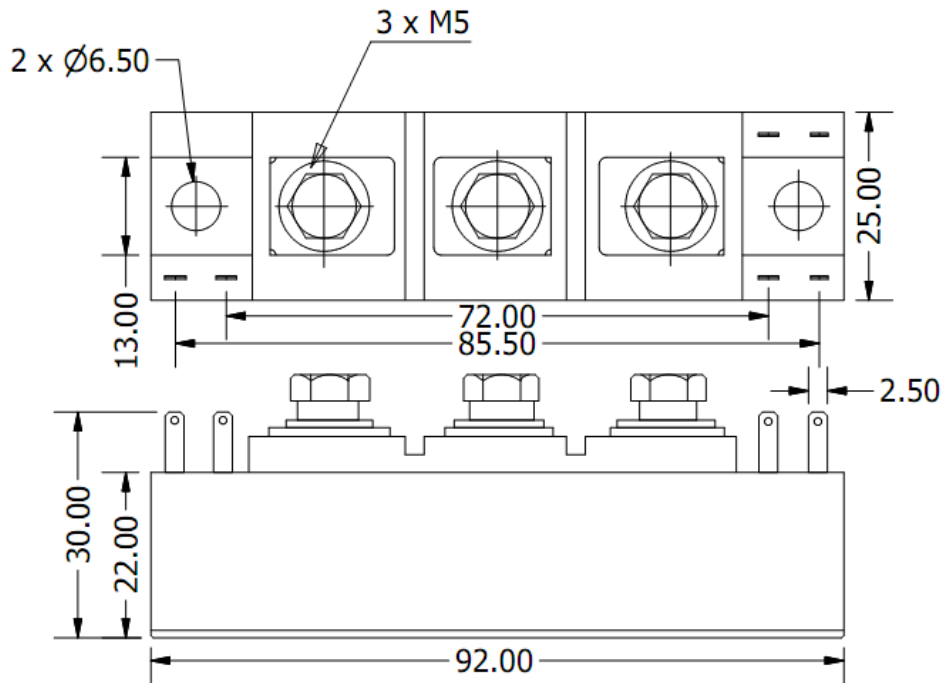
| Parameter | Conditions | Symbol | Values | Units |
|--|---|--------------|--------|------------------------|
| Average on-state current | Single phase, half-wave, 180° conduction | $I_{T(AV)}$ | 130 | A |
| R.M.S. on-state current | | $I_{T(RMS)}$ | 204 | A |
| On-state surge current | half cycle, 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 | $I_G = 200\text{mA}, T_J = 25^\circ\text{C}$ | 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} | 30 | 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 | $R_{th(jc)}$ | 0.20 | $^\circ\text{C}/\text{W}$ |
| Weight | W | 180 | g |

Package Outline

(All dimensions in mm)



Ordering Table

| <i>N3T</i> | <i>130</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)