

## Thyristor – Diode Module

### Features

- Improved glass passivation for high reliability
- Exceptional stability at high temperatures
- High di/dt and dv/dt capabilities
- Low thermal resistance

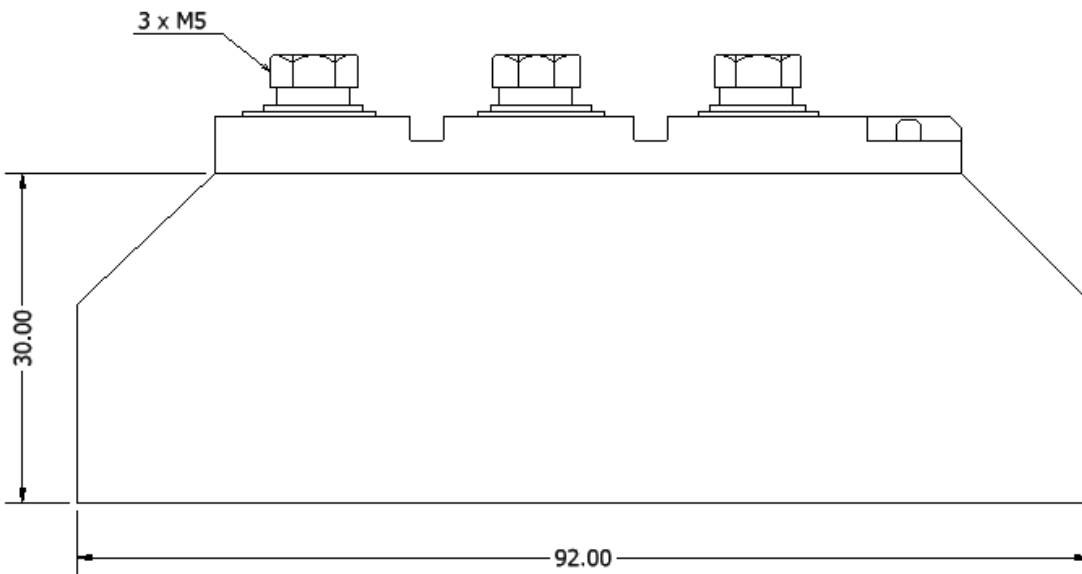
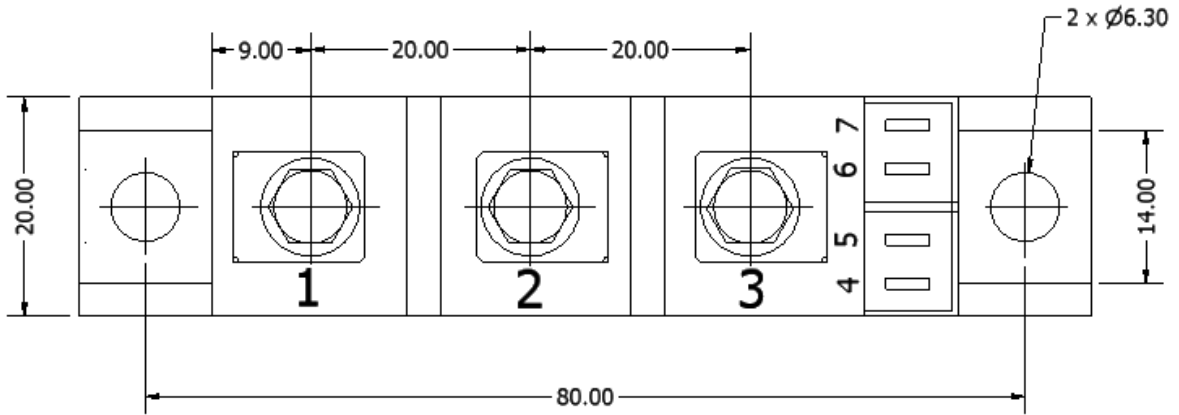
| Maximum Ratings ( $T_A = 25^{\circ}\text{C}$ unless otherwise noted) |              |        |                       |
|--|--------------|--------|-----------------------|
| Parameter  | Symbol       | Values | Units                 |
| Maximum average forward current @ $T_J = 85^{\circ}\text{C}$         | $I_{F(AV)}$  | 70     | A                     |
| Maximum average RMS forward current                                  | $I_{F(RMS)}$ | 160    | A                     |
| Maximum non-repetitive surge current @ $t = 10\text{ms}$             | $I_{FSM}$    | 1500   | A                     |
| Maximum $I^2t$ for fusing @ $t = 10\text{ms}$                        | $I^2t$       | 11     | $\text{kA}^2\text{s}$ |



**M1 PACKAGE**

| Thermal & Mechanical Specifications ( $T_A = 25^{\circ}\text{C}$ unless otherwise noted) |              |             |                             |
|--|--------------|-------------|-----------------------------|
| Parameter  | Symbol       | Values      | Units                       |
| Operating junction temperature range   | $T_J$        | -65 to +125 | $^{\circ}\text{C}$          |
| Thermal resistance, junction to case   | $R_{th(JC)}$ | 1.1         | $^{\circ}\text{C}/\text{W}$ |

| Electrical Characteristics ( $T_A = 25^{\circ}\text{C}$ unless otherwise noted) |              |             |                  |
|---|--------------|-------------|------------------|
| Parameter   | Symbol       | Values      | Units            |
| Maximum average on-state current  | $I_{T(max)}$ | 70          | A                |
| Maximum repetitive peak reverse voltage range                                   | $V_{RRM}$    | 200 to 1600 | V                |
| Forward voltage drop  | $V_{FM}$     | 1.3         | V                |
| Gate current required to trigger  | $I_{GT}$     | 100         | A                |
| Gate voltage required to trigger  | $V_{GT}$     | 2           | V                |
| Holding current range   | $I_H$        | 5 to 100    | mA               |
| Maximum latching current  | $I_L$        | 400         | mA               |
| Critical rate of rise of off-state voltage                                      | dv/dt        | 300         | V/ $\mu\text{s}$ |
| RMS isolated voltage  | $V_{ISO}$    | 2500        | V                |



ALL DIMENSIONS ARE IN MM

## Diode Configuration

