

Non-isolated Diode Module, 40 Amps

Features

- Low voltage three-phase
- Easy construction
- High surge current capability
- Non-isolated

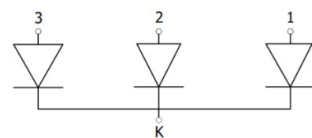
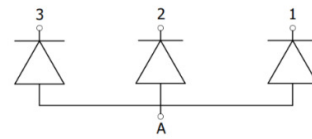


| Voltage Ratings ($T_C = 25^\circ\text{C}$ unless otherwise specified) | | | | |
|--|-------------|-------------|-------------|-------|
| Parameter | Symbol | N3D40A30(R) | N3D40A40(R) | Units |
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 300 | 400 | V |
| Maximum Non-Repetitive Peak Reverse Voltage | V_{RSM} | 360 | 480 | V |
| DC Reverse Voltage | $V_{R(DC)}$ | 240 | 320 | V |

| Electrical Characteristics ($T_C = 25^\circ\text{C}$ unless otherwise noted) | | | |
|---|-------------|--------|----------------------|
| Parameter | Symbol | Values | Units |
| Maximum average forward current | $I_{F(AV)}$ | 40 | A |
| Maximum average RMS forward current | I_{FRMS} | 62 | A |
| Maximum non-repetitive surge current | I_{FSM} | 800 | A |
| Maximum I^2t for fusing | I^2t | 3200 | A^2s |
| Forward voltage drop | V_{FM} | 1.15 | V |
| Maximum Repetitive Peak Reverse Current | I_R | 8 | mA |

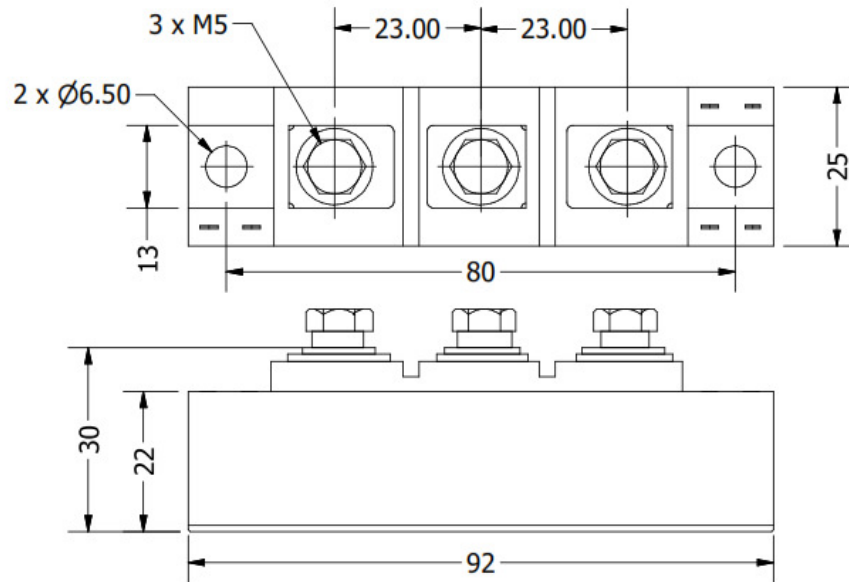
| Thermal & Mechanical Specifications ($T_C = 25^\circ\text{C}$ unless otherwise noted) | | | |
|--|---------------|-------------|---------------------------|
| Parameter | Symbol | Values | Units |
| Operating junction temperature range | T_J | -30 to +150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -30 to +125 | $^\circ\text{C}$ |
| Thermal resistance, junction to case | $R_{th(j-c)}$ | 0.60 | $^\circ\text{C}/\text{W}$ |
| Mounting torque | to heatsink | 2.5 | Nm |
| | to terminals | 2.5 | |
| Weight | W | 240 | g |

Circuit Configuration

| Circuit Description | Configuration Code | Circuit Drawing |
|-------------------------------------|--------------------|---|
| Common cathode (base plate cathode) | N3D |  |
| Common anode (base plate anode) | N3DR |  |

Package Outline

(All dimensions in mm)



Ordering Table

| N3D | 40 | A | 40 | R |
|-----|----|---|----|---|
| 1 | 2 | | 3 | 4 |

- 1 – Half-bridge Diode Module
- 2 – Current Rating = $I_{F(AV)}$
- 3 – Voltage Code (see Voltage Ratings table)
- 4 – Polarity
 - > None = common cathode
 - > R = common anode