

## Fast Recovery Diodes (Stud Version)

## Features

- Diffused Series
- Industrial grade
- Available in Normal and Reverse polarity
- Optional Avalanche Characteristic

Electrical Specifications ( $T_E = 25^\circ\text{C}$ , unless otherwise noted)

| Symbol      | Parameters                                               | Values | Units                  |
|-------------|----------------------------------------------------------|--------|------------------------|
| $I_{F(AV)}$ | Maximum avg. forward current @ $T_E = 150^\circ\text{C}$ | 70     | A                      |
| $V_{FM}$    | Maximum peak forward voltage drop @ rated $I_{F(AV)}$    | 1.4    | V                      |
| $I_{FSM}$   | Maximum peak one cycle (non-rep) surge current @ 10 msec | 700    | A                      |
| $I_{FRM}$   | Maximum peak repetitive surge current                    | 350    | A                      |
| $I^2t$      | Maximum $I^2t$ rating (non-rep) for 5 to 10 msec         | 7500   | $\text{A}^2\text{sec}$ |
| $T_{rr}$    | Reverse recovery time                                    | 300    | ns                     |



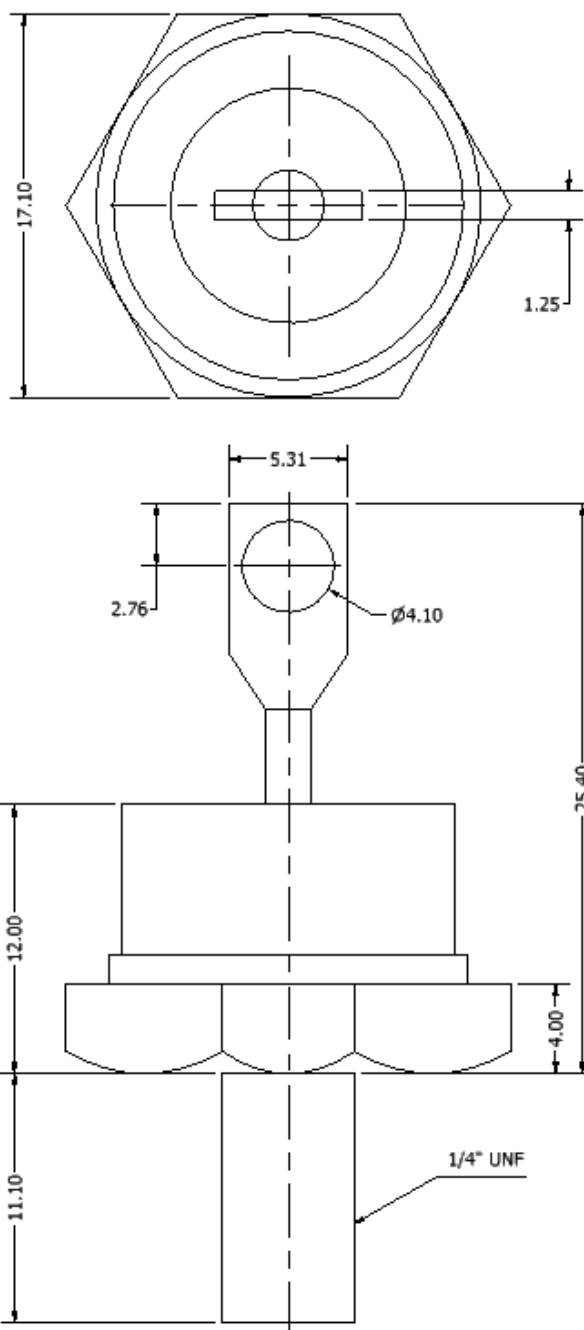
DO-203AB (DO-5)

Electrical Ratings ( $T_E = 25^\circ\text{C}$ , unless otherwise noted)

| Type number | Voltage Code | $V_{RRM}$ , Maximum repetitive peak reverse voltage (V) | $V_{R(RMS)}$ , Maximum RMS reverse voltage (V) | $V_R$ , Maximum DC blocking voltage (V) | Recommended RMS working voltage (V) | $I_{R(AV)}$ , Maximum avg. reverse leakage current ( $\mu\text{A}$ ) |
|-------------|--------------|---------------------------------------------------------|------------------------------------------------|-----------------------------------------|-------------------------------------|----------------------------------------------------------------------|
| 70NSF(R)    | 10           | 100                                                     | 70                                             | 100                                     | 40                                  | 100                                                                  |
|             | 20           | 200                                                     | 140                                            | 200                                     | 80                                  |                                                                      |
|             | 40           | 400                                                     | 280                                            | 400                                     | 160                                 |                                                                      |
|             | 60           | 600                                                     | 420                                            | 600                                     | 240                                 |                                                                      |
|             | 80           | 800                                                     | 560                                            | 800                                     | 320                                 |                                                                      |
|             | 100          | 1000                                                    | 700                                            | 1000                                    | 400                                 |                                                                      |
|             | 120          | 1200                                                    | 840                                            | 1200                                    | 480                                 |                                                                      |
|             | 140          | 1400                                                    | 980                                            | 1400                                    | 560                                 |                                                                      |
|             | 160          | 1600                                                    | 1120                                           | 1600                                    | 640                                 |                                                                      |

### Thermal & Mechanical Specifications ( $T_E = 25^{\circ}\text{C}$ , unless otherwise noted)

| Symbol       | Parameters                                   | Values                  | Units                       |
|--------------|----------------------------------------------|-------------------------|-----------------------------|
| $R_{th(jc)}$ | Maximum thermal resistance, junction to case | 0.5                     | $^{\circ}\text{C}/\text{W}$ |
| $T_J$        | Operating junction temperature range         | -65 to 150              | $^{\circ}\text{C}$          |
| $T_{stg}$    | Storage temperature                          | -65 to 200              | $^{\circ}\text{C}$          |
|              | Mounting torque (non-lubricated threads)     | 0.14 (min) - 0.17 (max) |                             |
| W            | Approximate allowable weight                 | 7                       | g                           |



ALL DIMENSIONS ARE IN MM