

# DIODE(THREE PHASES BRIDGE TYPE)

# DF200BA40/80

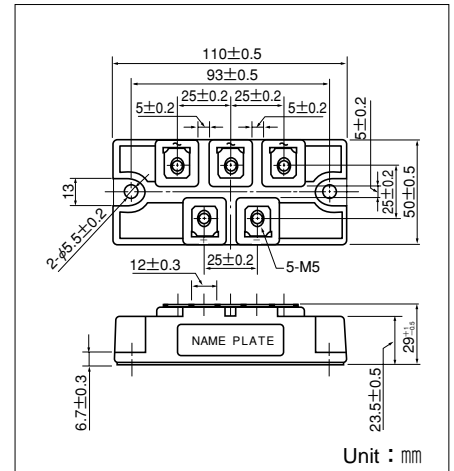
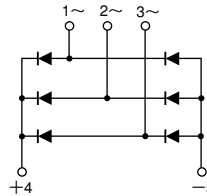
UL;E76102(M)

Power Diode Module DF200BA is designed for three phase full wave rectification, which has six diodes connected in a three phase bridge configuration. The mounting base of the module is electrically isolated from semiconductor elements for simple heatsink construction. Output DC current is 200Amp ( $T_c=102^{\circ}\text{C}$ ) Repetitive peak reverse voltage is up to 800V.

- $T_{j\text{Max}}=150^{\circ}\text{C}$
- Isolated mounting base
- High reliability by unique glass passivation

**(Applications)**

AC, DC Motor Drive/AVR/Switching  
-for three phase rectification



**Maximum Ratings**

( $T_j=25^{\circ}\text{C}$  unless otherwise specified)

| Symbol    | Item                                | Ratings   |           | Unit |
|-----------|-------------------------------------|-----------|-----------|------|
|           |                                     | DF200BA40 | DF200BA80 |      |
| $V_{RRM}$ | Repetitive Peak Reverse Voltage     | 400       | 800       | V    |
| $V_{RSM}$ | Non-Repetitive Peak Reverse Voltage | 480       | 960       | V    |

| Symbol    | Item                                 | Conditions                                       | Ratings                           | Unit                 |   |
|-----------|--------------------------------------|--|-----------------------------------|----------------------|---|
| $I_D$     | Output Current (D.C.)                | Three Phase full wave, $T_c=102^{\circ}\text{C}$ | 200                               | A                    |   |
| $I_{FSM}$ | Surge Forward Current                | 1 cycle, 50/60Hz, peak value, non-repetitive     | 1850/2000                         | A                    |   |
| $I^2t$    | $I^2t$                               | Value for one cycle of surge current             | 17000                             | $\text{A}^2\text{S}$ |   |
| $T_j$     | Operating Junction Temperature       |  | -40 to +150                       | $^{\circ}\text{C}$   |   |
| $T_{stg}$ | Storage Temperature                  |  | -40 to +125                       | $^{\circ}\text{C}$   |   |
| $V_{iso}$ | Isolation Breakdown Voltage (R.M.S.) | A.C. 1 minute                                    | 2500                              | V                    |   |
|           | Mounting Torque                      | Mounting (M5)                                    | Recommended Value 1.5-2.5 (15-25) | 2.7 (28)             | $\text{N}\cdot\text{m}$<br>( $\text{kgf}\cdot\text{cm}$ ) |
|           |                                      | Terminal (M5)                                    | Recommended Value 1.5-2.5 (15-25) | 2.7 (28)             |   |
|           | Mass                                 | Typical Value                                    | 360                               | g                    |   |

**Electrical Characteristics**

| Symbol        | Item                                  | Conditions   | Ratings | Unit                        |
|---------------|---------------------------------------|--|---------|-----------------------------|
| $I_{RRM}$     | Repetitive Peak Reverse Current, max. | $T_j=150^{\circ}\text{C}$ at $V_{RRM}$                             | 20.0    | mA                          |
| $V_{FM}$      | Forward Voltage Drop, max.            | $T_j=25^{\circ}\text{C}$ , $I_{FM}=200\text{A}$ , Inst measurement | 1.20    | V                           |
| $R_{th(j-c)}$ | Thermal Impedance, max.               | Junction to case   | 0.10    | $^{\circ}\text{C}/\text{W}$ |

