

## DIODE(THREE PHASES BRIDGE TYPE)

# DF20BA40/80

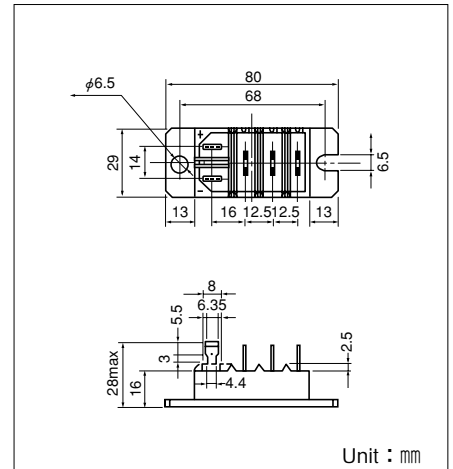
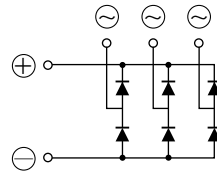
UL:E76102(M)

Power Diode Module **DF20BA** 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 20Amp ( $T_c=123^{\circ}\text{C}$ ) 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
- Easy Assemble by the #250 terminal Tab

### (Applications)

AC. DC Moter Drive/AVR/Switching  
—for three phase rectification



### Maximum Ratings

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

| Symbol    | Item                                | Ratings  |          | Unit |
|-----------|-------------------------------------|----------|----------|------|
|           |                                     | DF20BA40 | DF20BA80 |      |
| $V_{RRM}$ | 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. $T_c=123^{\circ}\text{C}$ | 20                                | A                  |                 |
| $I_{FSM}$ | Surge Forward Current                | 1 cycle, 50/60Hz, peak value, non-repetitive      | 320/350                           | A                  |                 |
| $T_j$     | 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.) | Main Terminal to case 1minute                     | 2500                              | V                  |                 |
|           | Mounting Torque                      | Mounting (M6)                                     | Recommended Value 2.5-3.9 (25-40) | 4.7 (48)           | N·m<br>(kgf·cm) |
|           |                                      | Terminal  | Tab Terminal # 250                | —                  |                 |
|           | Mass                                 | Typical Value                                     | 90                                | g                  |                 |

### Electrical Characteristics

| Symbol        | Item                                  | Conditions   | Ratings | Unit                 |
|---------------|---------------------------------------|--|---------|----------------------|
| $I_{RRM}$     | Repetitive Peak Reverse Current, max. | $T_j=150^{\circ}\text{C}$ at $V_{RRM}$                           | 1.5     | mA                   |
| $V_{FM}$      | Forward Voltage Drop, max.            | $I_{FM}=20\text{A}$ , $T_j=25^{\circ}\text{C}$ Inst. measurement | 1.1     | V                    |
| $R_{th(j-c)}$ | Thermal Impedance, max.               | Junction to case   | 0.6     | $^{\circ}\text{C/W}$ |

