

DIODE (THREE PHASES BRIDGE TYPE)

DF60BA40/80

TOP



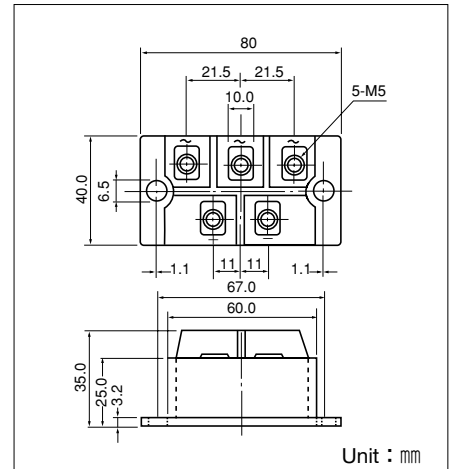
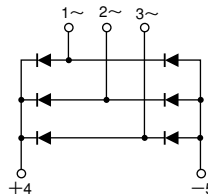
UL;E76102 (M)

Power Diode Module **DF60BA** 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 60Amp ($T_c=115^\circ\text{C}$) 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)

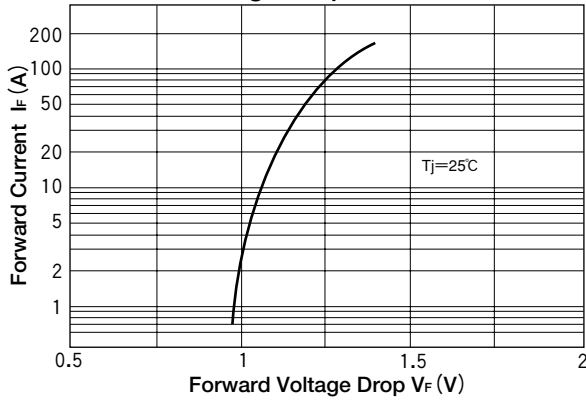
| Symbol | Item | Ratings | | Unit |
|-----------|-------------------------------------|----------|----------|------|
| | | DF60BA40 | DF60BA80 | |
| V_{RRM} | Repetitive Peak Reverse Voltage | 400 | 800 | V |
| V_{RSM} | Non-Repetitive Peak Reverse Voltage | 480 | 960 | V |

| Symbol | Item | Conditions | Ratings | Unit | |
|-----------|--------------------------------------|---|-----------------------------------|------------------|-----------------|
| I_D | Output current (D.C.) | Three phase. full wave. $T_c=115^\circ\text{C}$ | 60 | A | |
| I_{FSM} | Surge Forward Current | 1 cycle, 50/60Hz, peak value, non-repetitive | 910/1000 | 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 (kgf·cm) |
| | | Terminal (M5) | Recommended Value 1.5-2.5 (15-25) | 2.7 (28) | |
| | Mass | Typical Value | 200 | g | |

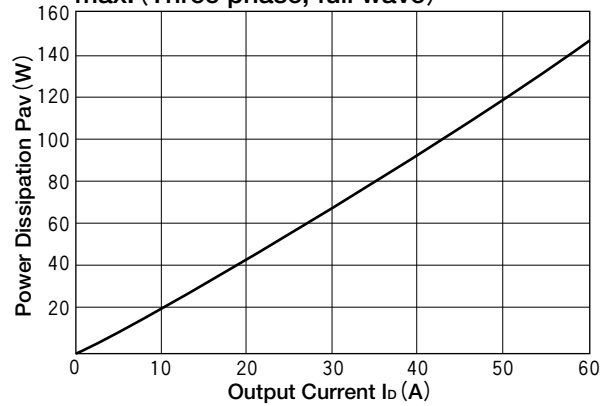
Electrical Characteristics

| Symbol | Item | Conditions | Ratings | Unit |
|---------------|---------------------------------------|--|---------|--------------------|
| I_{RRM} | Repetitive Peak Reverse Current, max. | $T_j=150^\circ\text{C}$ at V_{RRM} | 6.0 | mA |
| V_{FM} | Forward Voltage Drop, max. | $I_{FM}=60\text{A}$, $T_j=25^\circ\text{C}$ Inst. measurement | 1.2 | V |
| $R_{th(j-c)}$ | Thermal Impedance, max. | Junction to case | 0.24 | $^\circ\text{C/W}$ |

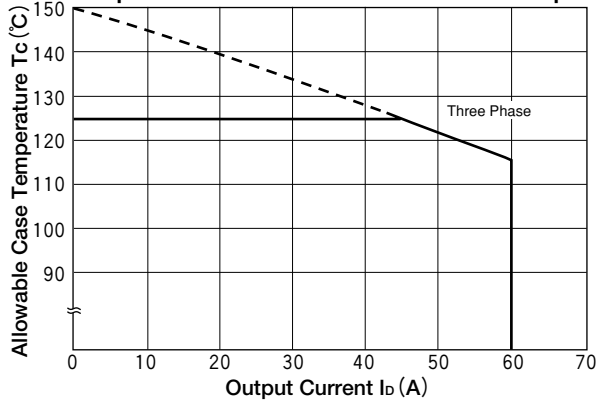
Forward Voltage Drop max.



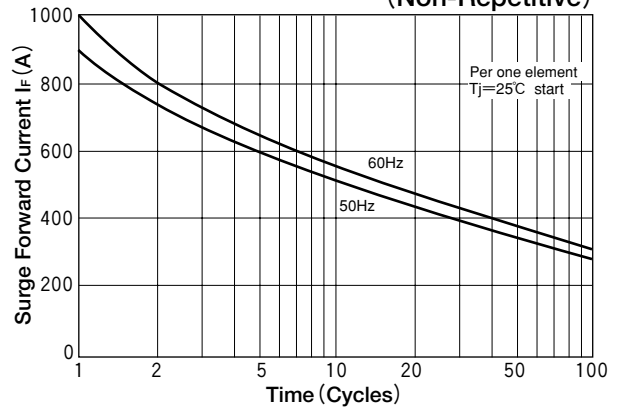
Output Current vs. Power Dissipation, max. (Three phase, full wave)



Output Current vs. Allowable case Temp



Cycle Surge Forward Current Rating (Non-Repetitive)



Transient Thermal Impedance (max)

