

DIODE MODULE

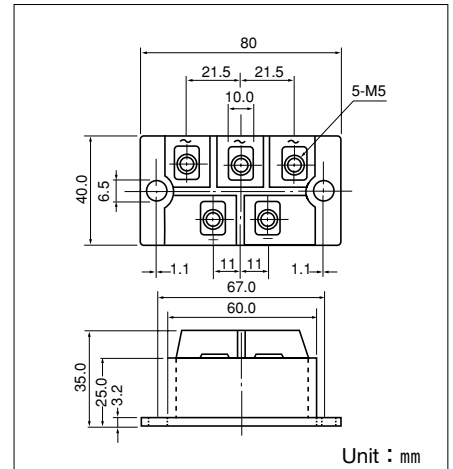
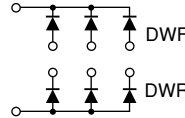
DWF(R)70BB30/40

Power Diode Module **DWF(W)70BB** is designed for three phase half wave rectification, which has three 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 70Amp ($T_c=106^\circ\text{C}$) Repetitive peak reverse voltage is up to 400V.

- $T_{j\text{Max}}=150^\circ\text{C}$
- 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 |
|-----------|-------------------------------------|--------------|--------------|------|
| | | DWF(R)70BB30 | DWF(R)70BB40 | |
| V_{RRM} | Repetitive Peak Reverse Voltage | 300 | 400 | V |
| V_{RSM} | Non-Repetitive Peak Reverse Voltage | 360 | 480 | V |

| Symbol | Item | Conditions | Ratings | Unit | |
|-----------|--------------------------------------|---|-----------------------------------|----------------------|-----------------|
| I_D | Average Forward Current (D.C.) | D.C. $T_c : 106^\circ\text{C}$ | 70 | A | |
| I_{FSM} | Surge Forward Current | 1 cycle, 60Hz, peak value, non-repetitive | 1400 | A | |
| I^2t | I^2t | Value for one cycle of surge current | 8100 | A^2S | |
| 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) | 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 |
|---------------|---------------------------------|---|---------|------|------|---------------------------|
| | | | Min. | Typ. | Max. | |
| I_{RRM} | Repetitive Peak Reverse Current | $T_j=150^\circ\text{C}$ at V_{RRM} | | | 12 | mA |
| V_{FM} | Forward Voltage Drop | $T_j=25^\circ\text{C}$, $I_{FM}=220\text{A}$, Inst. measurement | | | 1.15 | V |
| $R_{th(j-c)}$ | Thermal Impedance | Junction to case ($\frac{1}{3}$ MODULE) | | | 0.55 | $^\circ\text{C}/\text{W}$ |

