

DIODE(THREE PHASES BRIDGE TYPE)

DF40AA120/160

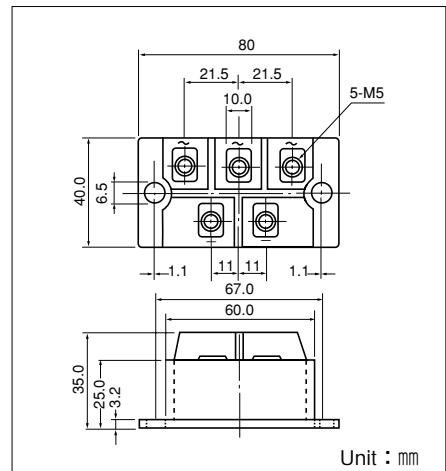
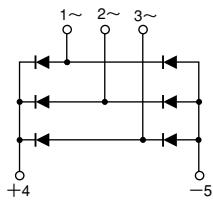
UL:E76102(M)

Power Diode Module **DF40AA** 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 40Amp ($T_c=116^\circ\text{C}$) Repetitive peak reverse voltage is up to 1,600V.

- $T_{j\text{Max}}=150^\circ\text{C}$
- 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 |
|-----------|-------------------------------------|-----------|-----------|------|
| | | DF40AA120 | DF40AA160 | |
| V_{RRM} | Repetitive Peak Reverse Voltage | 1200 | 1600 | V |
| V_{RSM} | Non-Repetitive Peak Reverse Voltage | 1300 | 1700 | V |

| Symbol | Item | Conditions | Ratings | Unit |
|-----------|--------------------------------------|---|-----------------------------------|-----------------|
| I_D | Output current (D.C.) | Three phase. full wave. $T_c=116^\circ\text{C}$ | 40 | A |
| I_{FSM} | Surge Forward Current | 1 cycle, 50/60Hz, peak value, non-repetitive | 640/700 | A |
| T_j | Junction Temperature | | -40 to +150 | °C |
| T_{stg} | Storage Temperature | | -40 to +125 | °C |
| V_{iso} | Isolation Breakdown Voltage (R.M.S.) | Main Terminal to case 1minute | 2500 | V |
| I_{TQ} | Mounting Torque | Mounting (M6) | Recommended Value 2.5-3.9 (25-40) | N·m (kgf·cm) |
| | | Terminal (M5) | Recommended Value 1.5-2.5 (15-25) | |
| | 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} | 8.0 | mA |
| V_{FM} | Forward Voltage Drop, max. | $I_{FM}=40\text{A}$, $T_j=25^\circ\text{C}$ Inst. measurement | 1.3 | V |
| $R_{th(j-c)}$ | Thermal Impedance, max. | Junction to case | 0.32 | °C/W |

