

## DIODE(THREE PHASES BRIDGE TYPE)

# DF60AA120/160

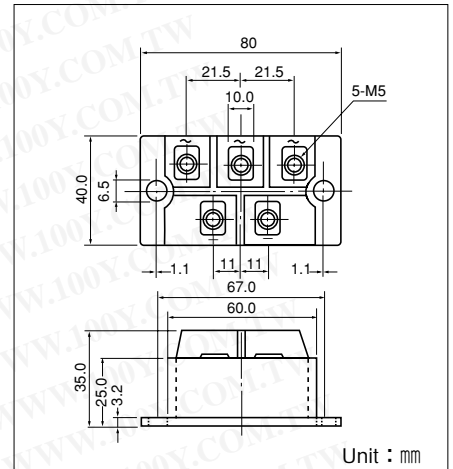
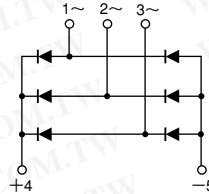
UL:E76102(M)

Power Diode Module **DF60AA** 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 ( $T_c=112^\circ\text{C}$ ) 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 |
|-----------|-------------------------------------|-----------|-----------|------|
|           |                                     | DF60AA120 | DF60AA160 |      |
| $V_{RRM}$ | 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, $T_c=112^\circ\text{C}$ | 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<br>(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 $V_{RRM}$                           | 12.0    | mA                 |
| $V_{FM}$      | Forward Voltage Drop, max.            | $I_{FM}=60\text{A}$ , $T_j=25^\circ\text{C}$ Inst. measurement | 1.3     | V                  |
| $R_{th(j-c)}$ | Thermal Impedance, max.               | Junction to case   | 0.24    | $^\circ\text{C/W}$ |

勝特力材料 886-3-5753170  
 勝特力电子(上海) 86-21-54151736  
 勝特力电子(深圳) 86-755-83298787  
[Http://www.100y.com.tw](http://www.100y.com.tw)

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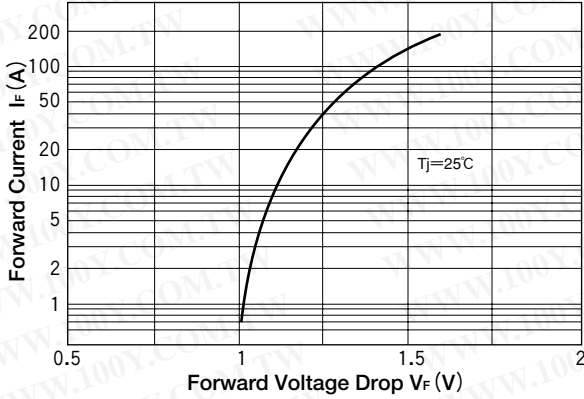
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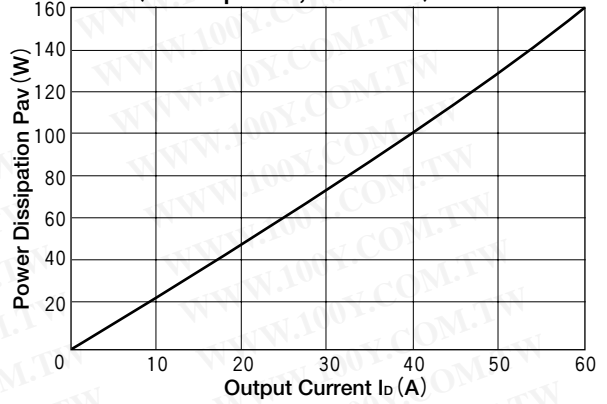
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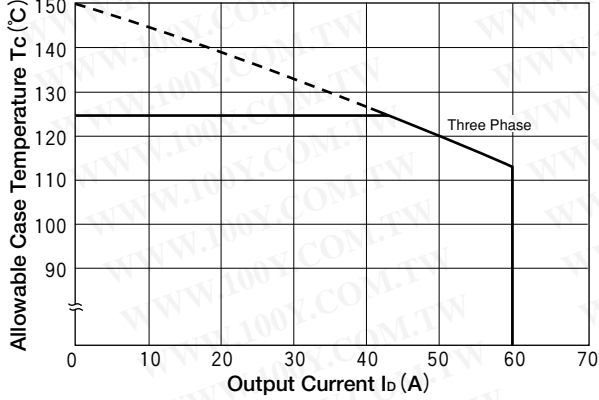
Forward Voltage Drop max.



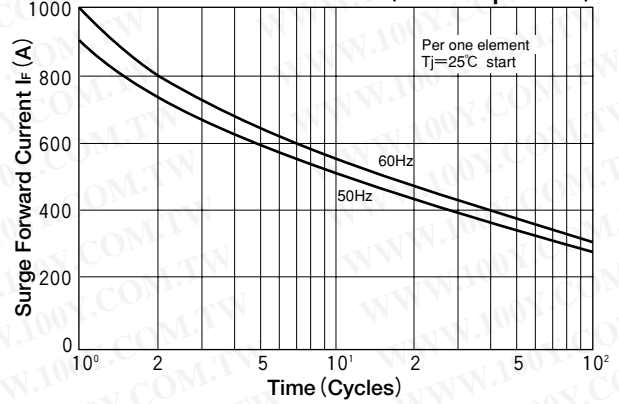
Output Current vs. Power Dissipation, max. (Three phase, full wave)



Output Current vs. Allowable case Temp



Cycle Surge Forward Current Rating (Non-Repetitive)



Transient Thermal Impedance (max)

