

MITSUBISHI DIODE MODULES  
**RM75TC-M,-H,-24,-2H**

MEDIUM POWER GENERAL USE  
 INSULATED TYPE

RM75TC-M,-H,-24,-2H



- **I<sub>o</sub>** DC output current ..... **150A**
- **V<sub>RRM</sub>** Repetitive peak reverse voltage  
 ..... **400/800/1200/1600V**

- **3 phase bridge**
- **Insulated Type**
- **UL Recognized**

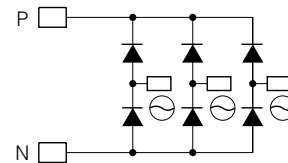
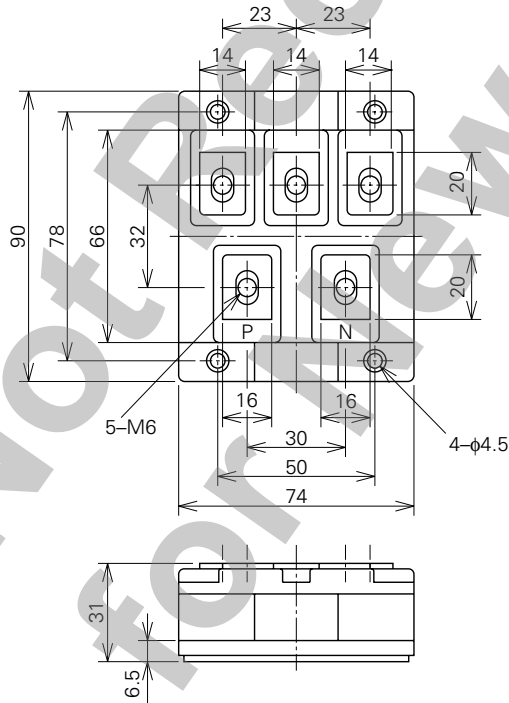
Yellow Card No. E80276 (N)  
 File No. E80271

**APPLICATION**

AC motor controllers, DC motor controllers, Battery DC power supplies,  
 DC power supplies for control panels, and other general DC power equipment

**OUTLINE DRAWING & CIRCUIT DIAGRAM**

Dimensions in mm



**RM75TC-M,-H,-24,-2H**MEDIUM POWER GENERAL USE  
INSULATED TYPE**ABSOLUTE MAXIMUM RATINGS**

| Symbol | Parameter                           | Voltage class |     |      |      | Unit |
|--------|-------------------------------------|---------------|-----|------|------|------|
|        |                                     | M             | H   | 24   | 2H   |      |
| VRRM   | Repetitive peak reverse voltage     | 400           | 800 | 1200 | 1600 | V    |
| VRSM   | Non-repetitive peak reverse voltage | 480           | 960 | 1350 | 1700 | V    |
| Ea     | Recommended AC input voltage        | 110           | 220 | 370  | 440  | V    |

| Symbol           | Parameter                              | Conditions  | Ratings               | Unit             |
|------------------|--|---|-----------------------|------------------|
| Io               | DC output current                      | Three-phase full wave rectifying circuit, Tc=99°C | 150                   | A                |
| IFSM             | Surge (non-repetitive) forward current | One half cycle at 60Hz, peak value                | 1500                  | A                |
| I <sup>2</sup> t | I <sup>2</sup> t for fusing            | Value for one cycle of surge current              | 9.4 × 10 <sup>3</sup> | A <sup>2</sup> s |
| f                | Maximum operating frequency            |   | 1000                  | Hz               |
| Tj               | Junction temperature                   |   | -40~+150              | °C               |
| Tstg             | Storage temperature                    |   | -40~+125              | °C               |
| Viso             | Isolation voltage                      | Charged part to case                              | 2500                  | V                |
| —                | Mounting torque                        | Main terminal screw M6                            | 1.96~2.94             | N·m              |
|                  |  | Mounting screw M4                                 | 20~30                 | kg·cm            |
| —                | Weight                                 | Typical value                                     | 0.98~1.47             | N·m              |
|                  |  |   | 10~15                 | kg·cm            |

**ELECTRICAL CHARACTERISTICS**

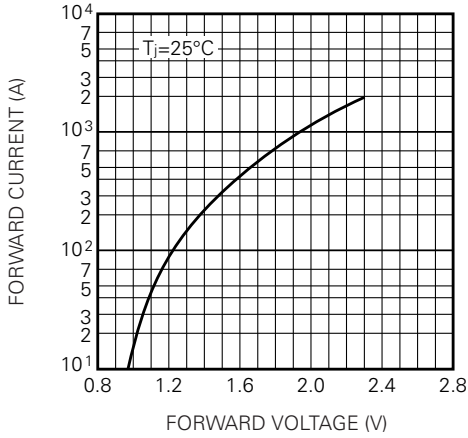
| Symbol    | Parameter                  | Test conditions   | Limits |      |      | Unit |
|-----------|----------------------------|---|--------|------|------|------|
|           |                            |   | Min.   | Typ. | Max. |      |
| IRRM      | Repetitive reverse current | Tj=150°C, VRRM applied  | —      | —    | 15   | mA   |
| VFM       | Forward voltage            | Tj=25°C, IFM=150A, instantaneous meas.                          | —      | —    | 1.3  | V    |
| Rth (j-c) | Thermal resistance         | Junction to case  | —      | —    | 0.13 | °C/W |
| Rth (c-f) | Contact thermal resistance | Case to fin, conductive grease applied                          | —      | —    | 0.04 | °C/W |
| —         | Insulation resistance      | Measured with a 500V megohmmeter between main terminal and case | 10     | —    | —    | MΩ   |

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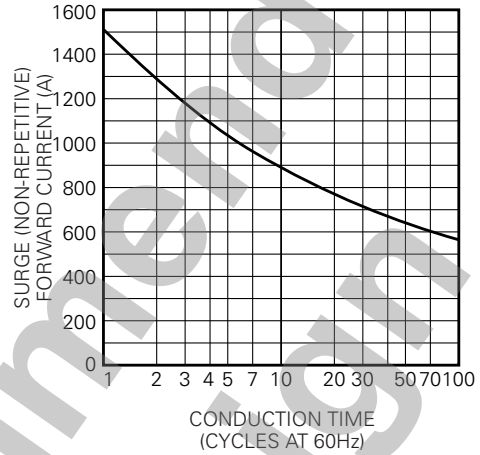
MEDIUM POWER GENERAL USE  
INSULATED TYPE

## PERFORMANCE CURVES

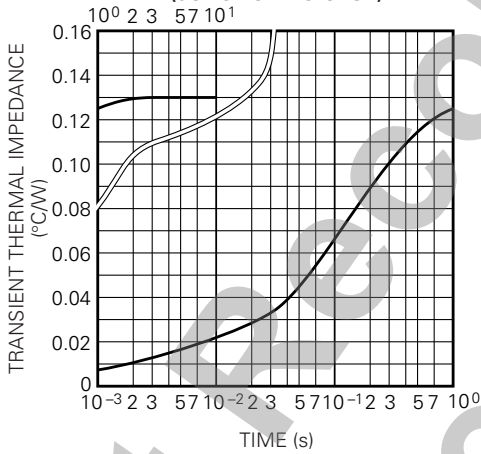
MAXIMUM FORWARD CHARACTERISTIC



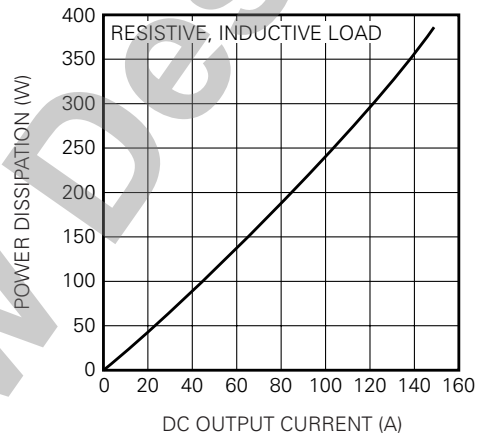
ALLOWABLE SURGE (NON-REPETITIVE) FORWARD CURRENT



MAXIMUM TRANSIENT THERMAL IMPEDANCE (JUNCTION TO CASE)



MAXIMUM POWER DISSIPATION



ALLOWABLE CASE TEMPERATURE VS. DC OUTPUT CURRENT

