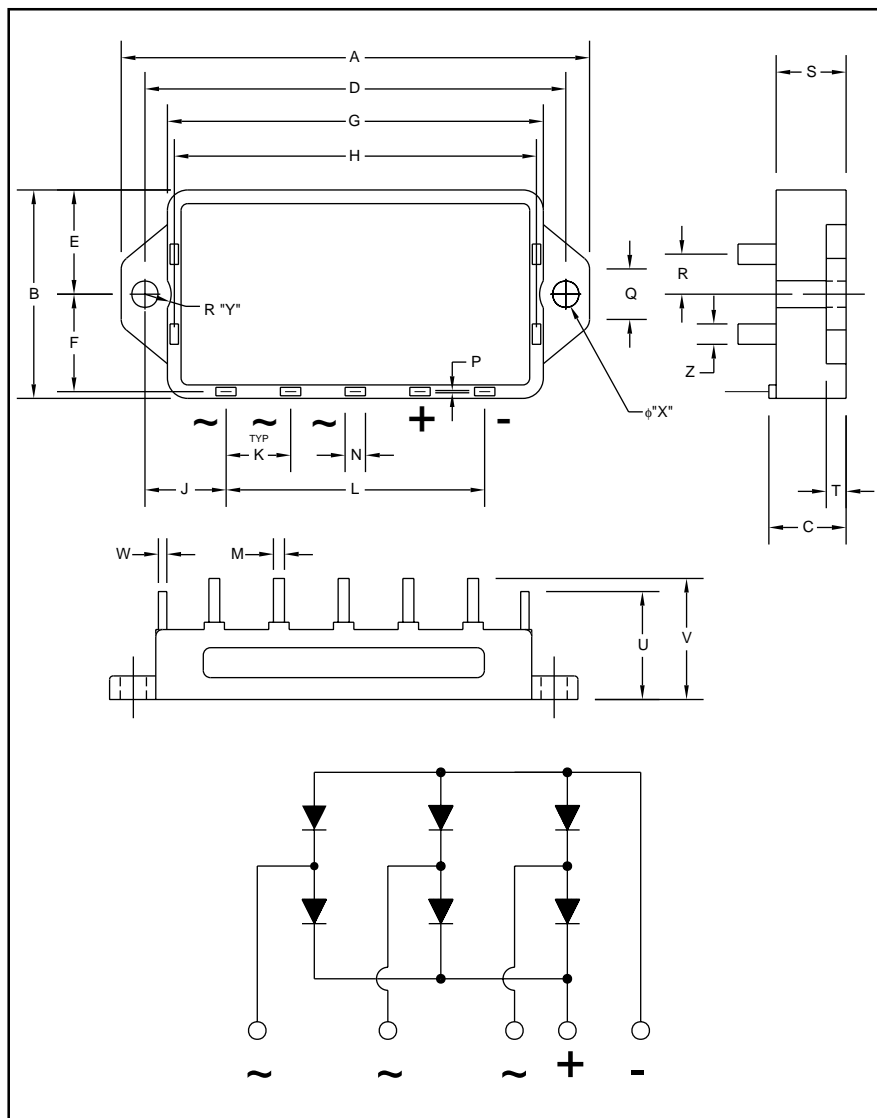


RM10TN-2H



Description:

Mitsubishi Three-Phase Diode Bridge Modules are designed for use in applications requiring rectification of three-phase AC lines into DC voltage. Each module consists of six diodes and the interconnect required to form a complete three-phase bridge circuit. Each diode is electrically insulated from the mounting base plate for easy mounting on a common heatsink with other components.

Features:

- Isolated Mounting
- Metal Base Plate
- Low Thermal Impedance

Applications:

- Motor Control
- Inverters
- UPS

Ordering Information:

RM10TN-2H

Outline Drawing and Circuit Diagram

| Dimensions | Inches | Millimeters |
|------------|--------|-------------|
| A | 2.83 | 71.8 |
| B | 1.18 | 30.0 |
| C | 0.35 | 9.0 |
| D | 2.55 | 64.8 |
| E | 0.59 | 15.0 |
| F | 0.54 | 13.7 |
| G | 2.32 | 58.8 |
| H | 2.21 | 56.2 |
| J | 0.48 | 12.08 |
| K | 0.40 | 10.16 |
| L | 1.60 | 40.64 |
| M | 0.05 | 1.20 |

| Dimensions | Inches | Millimeters |
|------------|--------|-------------|
| N | 0.16 | 4.0 |
| P | 0.02 | 0.6 |
| Q | 0.55 | 14.0 |
| R | 0.20 | 5.0 |
| S | 0.35 | 9.0 |
| T | 0.14 | 3.5 |
| U | 0.45 | 11.5 |
| V | 0.71 | 18.0 |
| W | 0.06 | 1.5 |
| X | 0.16 | 4.0 |
| Y | 0.16 | 4.0 |
| Z | 0.08 | 2.0 |



RM10TN-2H

Absolute Maximum Ratings, $T_j = 25\text{ }^\circ\text{C}$ unless otherwise specified

| Ratings | Symbol | RM10TN-2H | Units |
|---|-----------|-------------|---------------------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | 1600 | Volts |
| Non-Repetitive Peak Reverse Voltage | V_{RSM} | 1700 | Volts |
| Recommended AC Input Voltage | E_A | 440 | Volts |
| DC Output Current ($T_b = 100^\circ\text{C}$) | I_O | 10 | Amperes |
| Surge (Non-Repetitive) Forward Current (One Half Cycle at 60Hz, Peak Value) | I_{FSM} | 200 | Amperes |
| I^2t for Fusing (Value for One Cycle of Surge Current) | I^2t | 166 | A^2sec |
| Junction Temperature | T_j | -40 ~ +125 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | -40 ~ +125 | $^\circ\text{C}$ |
| Operating Frequency | f | 1000 | Hz |
| Maximum Mounting Torque M3.5 Mounting Screw | — | 0.78 ~ 0.98 | $\text{N} \cdot \text{m}$ |
| Maximum Mounting Torque M3.5 Terminal Screw | — | 0.78 ~ 0.98 | $\text{N} \cdot \text{m}$ |
| Isolation Voltage (Main Terminal to Baseplate, AC 1 min.) | V_{iso} | 2500 | V_{rms} |

Electrical and Thermal Characteristics, $T_j = 25\text{ }^\circ\text{C}$ unless otherwise specified

| Characteristics | Symbol | Test Conditions | Min. | Typ. | Max. | Units |
|----------------------------|---------------|---|------|------|------|---------------------------|
| Repetitive Reverse Current | I_{RRM} | $T_j = 125^\circ\text{C}$, $V_{RRM} = \text{Rated}$ | — | — | 8.0 | mA |
| Forward Voltage Drop | V_{FM} | $T_j = 25^\circ\text{C}$, $I_{FM} = 10\text{A}$, Instantaneous Measurement | — | — | 1.5 | Volts |
| Thermal Resistance | $R_{th(j-b)}$ | Junction to Base Plate | — | — | 3.5 | $^\circ\text{C}/\text{W}$ |
| Thermal Resistance | $R_{th(b-f)}$ | Base to Fin, Thermal Grease Applied | — | — | 0.3 | $^\circ\text{C}/\text{W}$ |
| Isolation Resistance | | At 500V DC Between Terminal and Base Plate | 10 | — | — | $\text{M}\Omega$ |

