

## MITSUBISHI DIODE MODULES

# RM30TA-M,-H

## **MEDIUM POWER GENERAL USE INSULATED TYPE**

RM30TA-M,-H



- **Io** DC output current ..... **75A**
  - **V<sub>RMM</sub>** Repetitive peak reverse voltage ..... **400/800V**
  - **3 phase bridge**
  - **Insulated Type**
  - **UL Recognized**

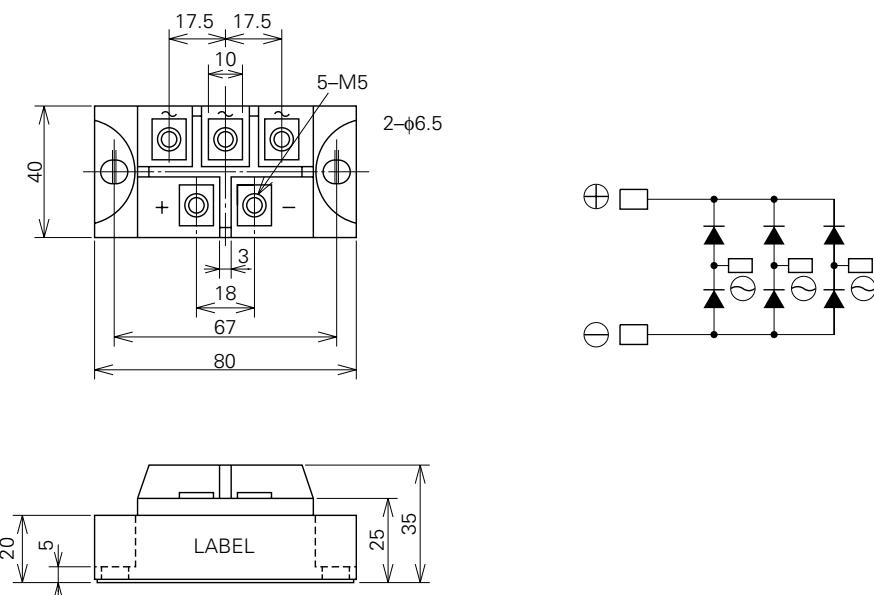
Yellow Card No. E80276 (N)  
File No. E80271

## 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



**ABSOLUTE MAXIMUM RATINGS**

Symbol	Parameter	Voltage class		Unit
		M	H	
V <sub>RRM</sub>	Repetitive peak reverse voltage	400	800	V
V <sub>RSM</sub>	Non-repetitive peak reverse voltage	500	900	V
E <sub>a</sub>	Recommended AC input voltage	110	220	V

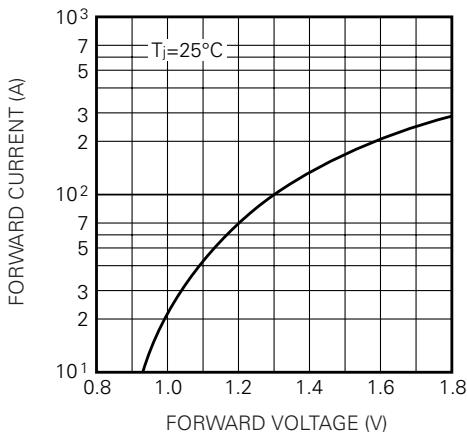
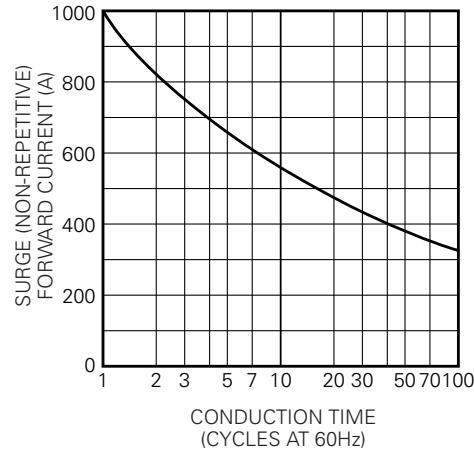
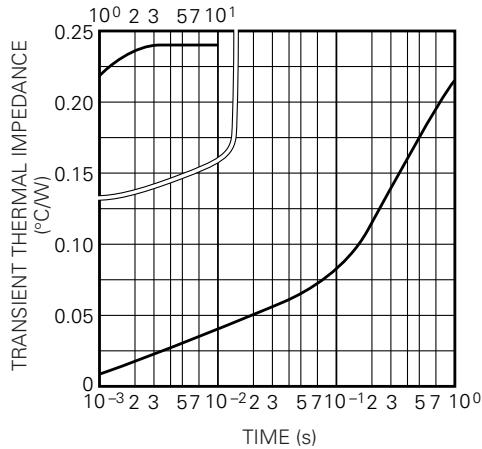
Symbol	Parameter	Conditions	Ratings	Unit
I <sub>o</sub>	DC output current	Three-phase full wave rectifying circuit, T <sub>c</sub> =105°C	75	A
I <sub>FSM</sub>	Surge (non-repetitive) forward current	One half cycle at 60Hz, peak value	1000	A
I <sup>2</sup> t	I <sup>2</sup> t for fusing	Value for one cycle of surge current	4.2 × 10 <sup>3</sup>	A <sup>2</sup> s
f	Maximum operating frequency		1000	Hz
T <sub>j</sub>	Junction temperature		-40~+150	°C
T <sub>stg</sub>	Storage temperature		-40~+125	°C
V <sub>iso</sub>	Isolation voltage	Charged part to case	2500	V
—	Mounting torque	Main terminal screw M5	1.47~1.96	N·m
			15~20	kg·cm
		Mounting screw M6	1.96~2.94	N·m
			20~30	kg·cm
—	Weight	Typical value	220	g

**ELECTRICAL CHARACTERISTICS**

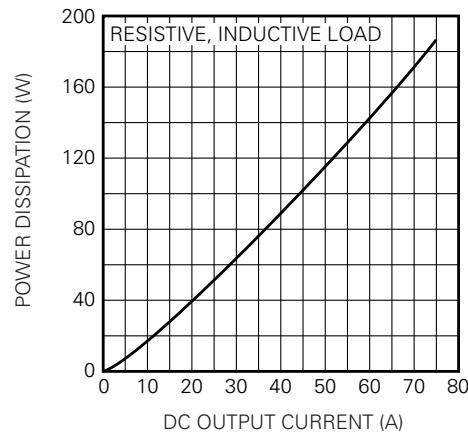
Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
I <sub>RRM</sub>	Repetitive reverse current	T <sub>j</sub> =150°C, V <sub>RRM</sub> applied	—	—	10	mA
V <sub>FM</sub>	Forward voltage	T <sub>j</sub> =25°C, I <sub>FM</sub> =100A, instantaneous meas.	—	—	1.3	V
R <sub>th</sub> (j-o)	Thermal resistance	Junction to case	—	—	0.24	°C/W
R <sub>th</sub> (c-f)	Contact thermal resistance	Case to fin, conductive grease applied	—	—	0.06	°C/W
—	Insulation resistance	Measured with a 500V megohmmeter between main terminal and case	10	—	—	MΩ

## PERFORMANCE CURVES

MAXIMUM FORWARD CHARACTERISTIC

ALLOWABLE SURGE (NON-REPETITIVE)  
FORWARD CURRENTMAXIMUM TRANSIENT THERMAL IMPEDANCE  
(JUNCTION TO CASE)

MAXIMUM POWER DISSIPATION

ALLOWABLE CASE TEMPERATURE  
VS. DC OUTPUT CURRENT