

MITSUBISHI DIODE MODULES

RM30TA-M,-H

MEDIUM POWER GENERAL USE
INSULATED TYPE

RM30TA-M,-H



- **Io** DC output current **75A**
- **VRRM** Repetitive peak reverse voltage
..... **400/800V**

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

Yellow Card No. E80276 (N)

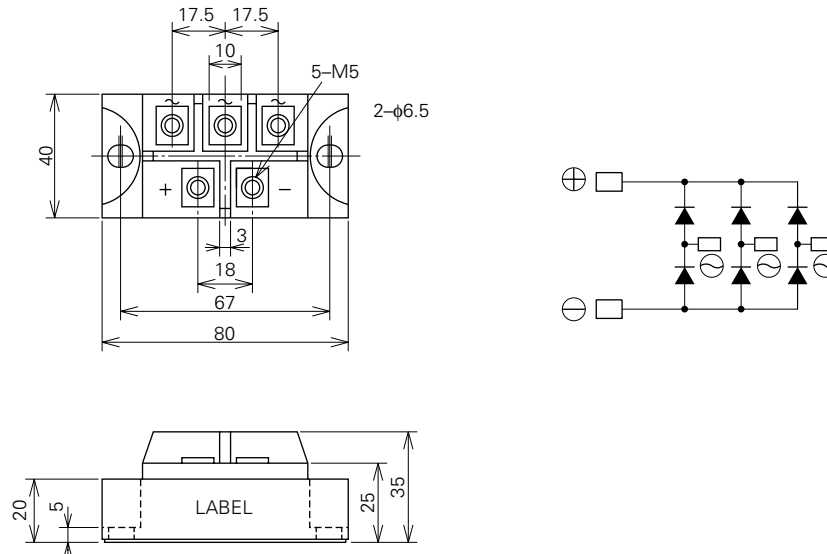
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APPLICATION

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



Feb. 1999



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ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Voltage class		Unit
		M	H	
VRRM	Repetitive peak reverse voltage	400	800	V
VFSM	Non-repetitive peak reverse voltage	500	900	V
Ea	Recommended AC input voltage	110	220	V

Symbol	Parameter	Conditions	Ratings	Unit
Io	DC output current	Three-phase full wave rectifying circuit, Tc=105°C	75	A
IFSM	Surge (non-repetitive) forward current	One half cycle at 60Hz, peak value	1000	A
I ² _t	I ² _t for fusing	Value for one cycle of surge current	4.2 × 10 ³	A ² s
f	Maximum operating frequency		1000	Hz
T _j	Junction temperature		-40~+150	°C
T _{stg}	Storage temperature		-40~+125	°C
V _{iso}	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

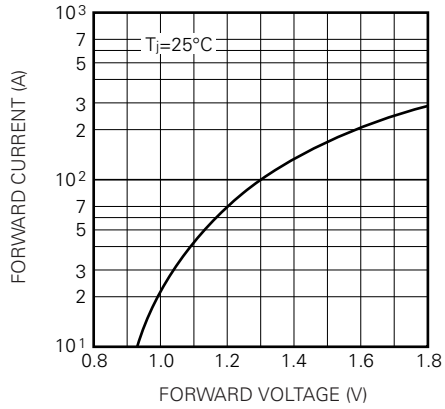
Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
IRRM	Repetitive reverse current	T _j =150°C, VRRM applied	—	—	10	mA
VFM	Forward voltage	T _j =25°C, IFM=100A, instantaneous meas.	—	—	1.3	V
R _{th (j-c)}	Thermal resistance	Junction to case	—	—	0.24	°C/W
R _{th (c-f)}	Contact thermal resistance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

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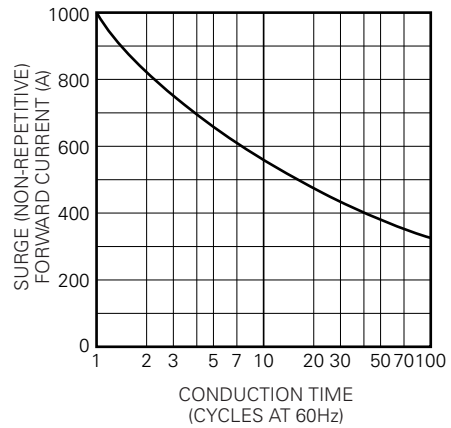
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PERFORMANCE CURVES

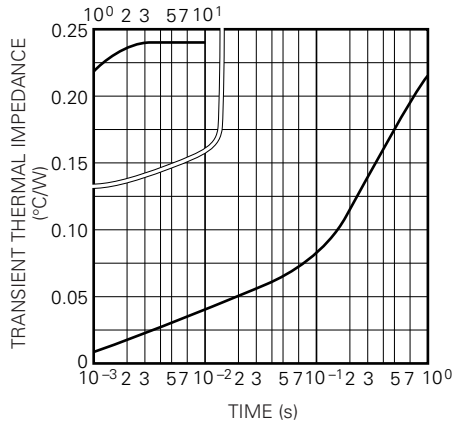
MAXIMUM FORWARD CHARACTERISTIC



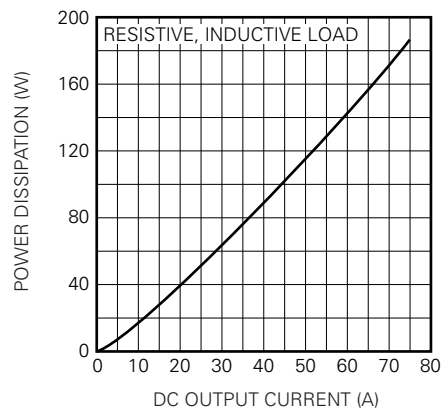
ALLOWABLE SURGE (NON-REPETITIVE) FORWARD CURRENT



MAXIMUM TRANSIENT THERMAL IMPEDANCE (JUNCTION TO CASE)



MAXIMUM POWER DISSIPATION



ALLOWABLE CASE TEMPERATURE VS. DC OUTPUT CURRENT

