

MITSUBISHI DIODE MODULES

RM30TA-M,-H

MEDIUM POWER GENERAL USE
INSULATED TYPE

RM30TA-M,-H



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

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

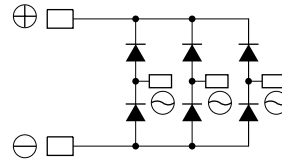
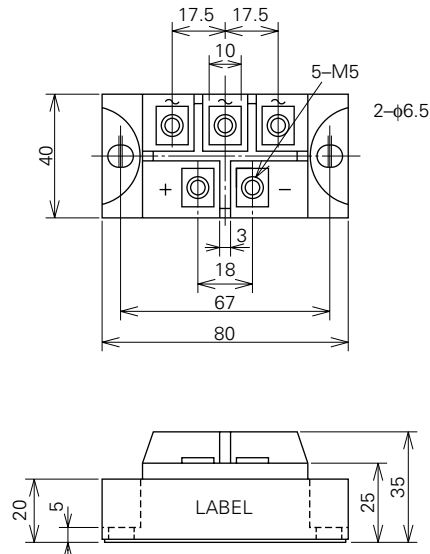
Yellow Card No. E80276 (N)
File No. E80271

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



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

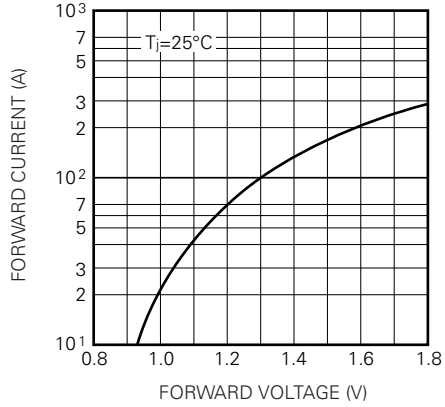
Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
IRRM	Repetitive reverse current	T _j =150°C, VRRM applied	—	—	10	mA
VFM	Forward voltage	T _j =25°C, IFM=100A, instantaneous meas.	—	—	1.3	V
R _{th (j-c)}	Thermal resistance	Junction to case	—	—	0.24	°C/W
R _{th (c-f)}	Contact thermal resistance	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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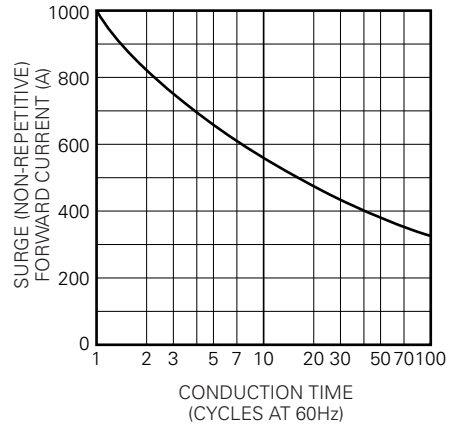
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PERFORMANCE CURVES

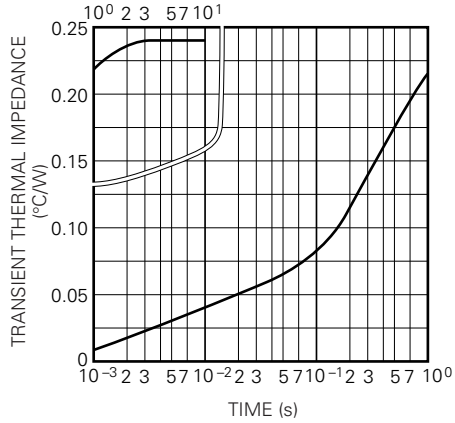
MAXIMUM FORWARD CHARACTERISTIC



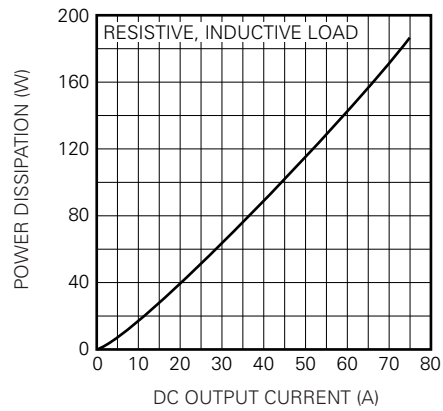
ALLOWABLE SURGE (NON-REPETITIVE) FORWARD CURRENT



MAXIMUM TRANSIENT THERMAL IMPEDANCE (JUNCTION TO CASE)



MAXIMUM POWER DISSIPATION



ALLOWABLE CASE TEMPERATURE VS. DC OUTPUT CURRENT

