

MITSUBISHI DIODE MODULES

# RM10TA-M,-H

MEDIUM POWER GENERAL USE  
INSULATED TYPE

RM10TA-M,-H



- **Io** DC output current ..... **20A**
- **VRRM** Repetitive peak reverse voltage  
..... **400/800V**

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

Yellow Card No. E80276 (N)

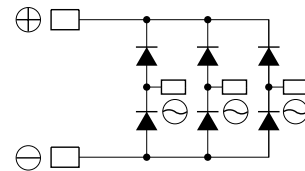
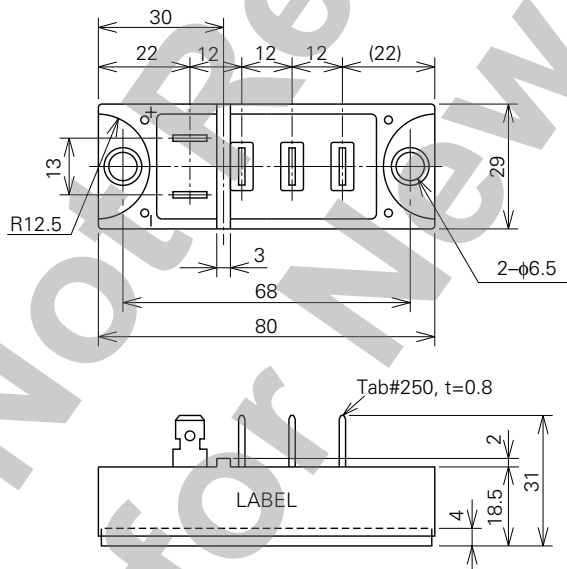
File No. E80271

## 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
VRSM	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=107°C	20	A
IFSM	Surge (non-repetitive) forward current	One half cycle at 60Hz, peak value	350	A
I <sup>2</sup> t	I <sup>2</sup> t for fusing	Value for one cycle of surge current	4.2 × 10 <sup>2</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	Mounting screw M6	1.96~2.94	N·m
—	Weight	Typical value	20~30	kg·cm
—	Weight	Typical value	120	g

## ELECTRICAL CHARACTERISTICS

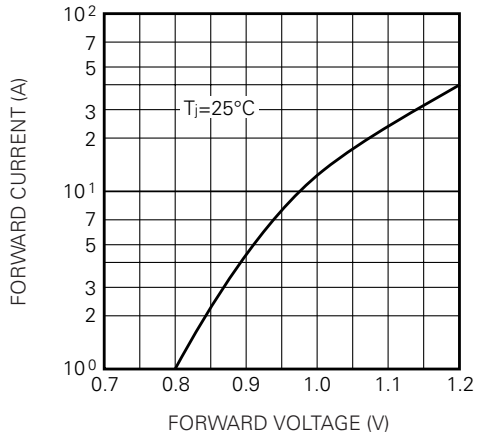
Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
IRRM	Repetitive reverse current	Tj=150°C, VRRM applied	—	—	1.5	mA
VFM	Forward voltage	Tj=25°C, IFM=20A, instantaneous meas.	—	—	1.07	V
Rth (j-c)	Thermal resistance	Junction to case	—	—	1.0	°C/W
Rth (c-f)	Contact thermal resistance	Case to fin, conductive grease applied	—	—	0.1	°C/W
—	Insulation resistance	Measured with a 500V megohmmeter between main terminal and case	10	—	—	MΩ

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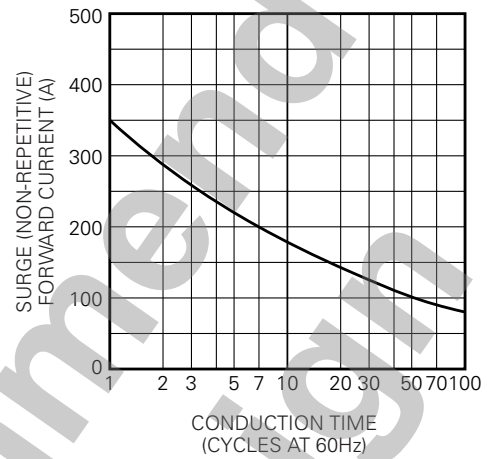
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## PERFORMANCE CURVES

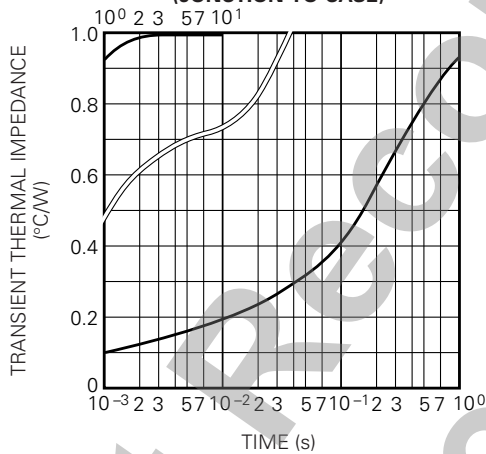
MAXIMUM FORWARD CHARACTERISTIC



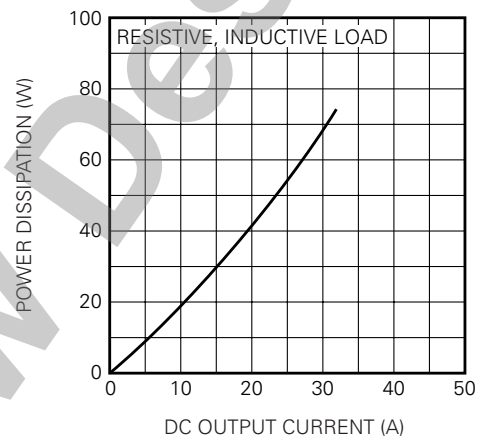
ALLOWABLE SURGE (NON-REPETITIVE) FORWARD CURRENT



MAXIMUM TRANSIENT THERMAL IMPEDANCE (JUNCTION TO CASE)



MAXIMUM POWER DISSIPATION



ALLOWABLE CASE TEMPERATURE VS. DC OUTPUT CURRENT

