

MITSUBISHI DIODE MODULES  
**RM50TC-M,-H,-24,-2H**

MEDIUM POWER GENERAL USE  
 INSULATED TYPE

RM50TC-M,-H,-24,-2H



- **I<sub>o</sub>** DC output current ..... **100A**
- **VRRM** Repetitive peak reverse voltage  
 ..... **400/800/1200/1600V**

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

Yellow Card No. E80276 (N)

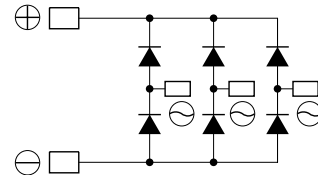
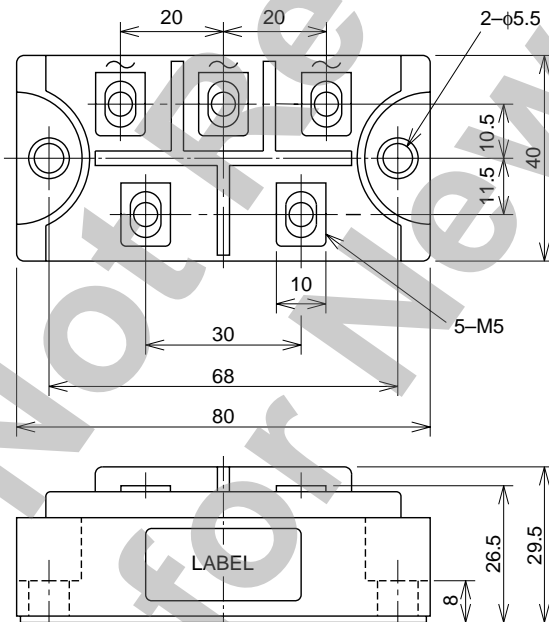
File No. E80271

**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



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## ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Voltage class				Unit
		M	H	24	2H	
VRRM	Repetitive peak reverse voltage	400	800	1200	1600	V
VRSM	Non-repetitive peak reverse voltage	480	960	1350	1700	V
Ea	Recommended AC input voltage	110	220	370	440	V

Symbol	Parameter	Conditions	Ratings	Unit
Io	DC output current	Three-phase full wave rectifying circuit, Tc=102°C	100	A
IFSM	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
Tj	Junction temperature		-40~+150	°C
Tstg	Storage temperature		-40~+125	°C
Viso	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 M5	1.47~1.96	N·m
			15~20	kg·cm
—	Weight	Typical value	220	g

## ELECTRICAL CHARACTERISTICS

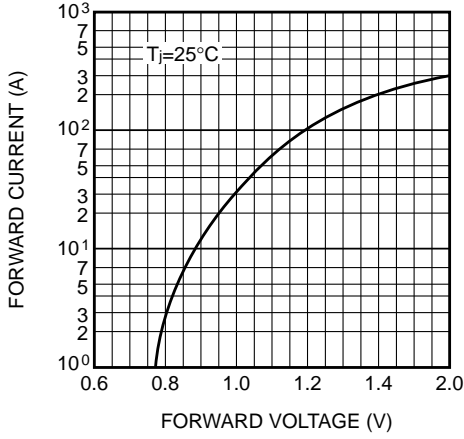
Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
I <sub>RRM</sub>	Repetitive reverse current	T <sub>j</sub> =150°C, VRRM applied	—	—	10	mA
V <sub>FM</sub>	Forward voltage	T <sub>j</sub> =25°C, I <sub>FM</sub> =100A, instantaneous meas.	—	—	1.2	V
R <sub>th(j-c)</sub>	Thermal resistance	Junction to case	—	—	0.2	°C/W
R <sub>th(c-f)</sub>	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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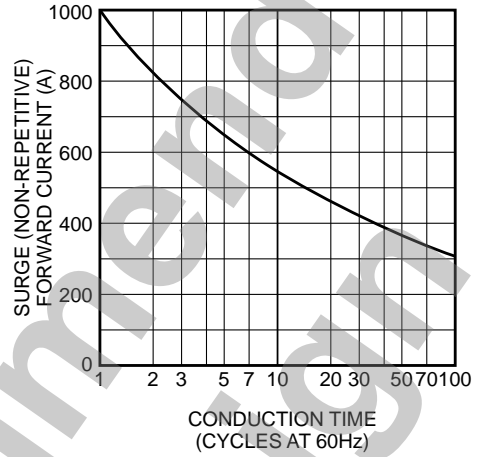
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## PERFORMANCE CURVE

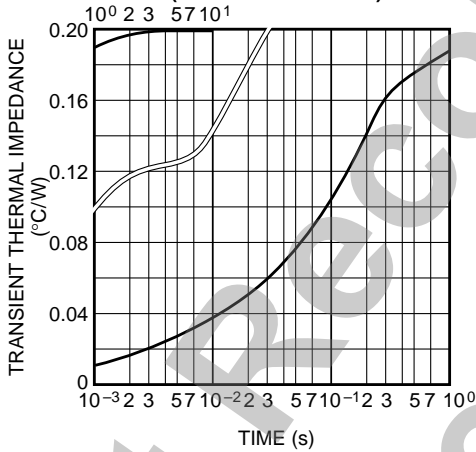
MAXIMUM FORWARD CHARACTERISTIC



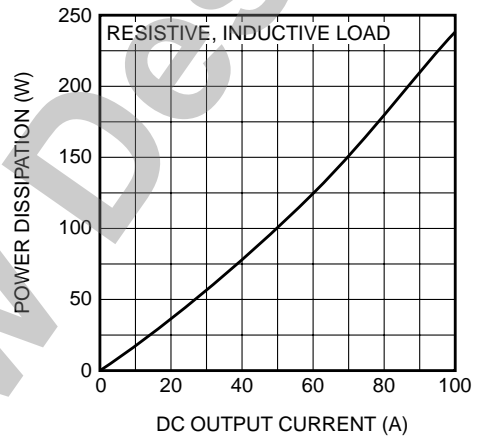
ALLOWABLE SURGE (NON-REPETITIVE) FORWARD CURRENT



MAXIMUM TRANSIENT THERMAL IMPEDANCE (JUNCTION TO CASE)



MAXIMUM POWER DISSIPATION



ALLOWABLE CASE TEMPERATURE VS. DC OUTPUT CURRENT

