

# RM30TC-40

HIGH VOLTAGE MEDIUM POWER GENERAL USE  
INSULATED TYPE

RM30TC-40



- **I<sub>o</sub>** DC output current ..... **60A**
- **V<sub>RRM</sub>** Repetitive peak reverse voltage ..... **2000V**

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

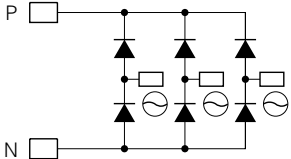
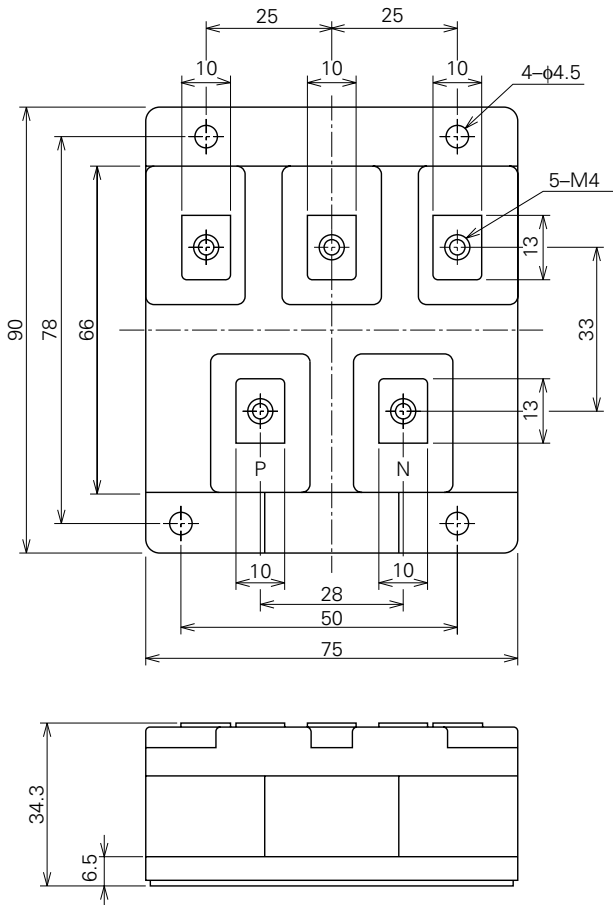
Yellow Card No. E80276 (N)  
File No. E80271

### 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
		40		
VRRM	Repetitive peak reverse voltage	2000		V
VRSM	Non-repetitive peak reverse voltage	2100		V
Ea	Recommended AC input voltage	1600		V

Symbol	Parameter	Conditions	Ratings	Unit
I <sub>o</sub>	DC output current	Three-phase full wave rectifying circuit, T <sub>c</sub> =82°C	60	A
IFSM	Surge (non-repetitive) forward current	One half cycle at 60Hz, peak value	1000	A
I <sup>2</sup> <sub>t</sub>	I <sup>2</sup> <sub>t</sub> 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~+125	°C
T <sub>stg</sub>	Storage temperature		-40~+125	°C
V <sub>iso</sub>	Isolation voltage	Charged part to case	3000	V
—	Mounting torque	Main terminal screw M4	0.98~1.47	N·m
			10~15	kg·cm
		Mounting screw M4	0.98~1.47	N·m
			10~15	kg·cm
—	Weight	Typical value	405	g

**ELECTRICAL CHARACTERISTICS**

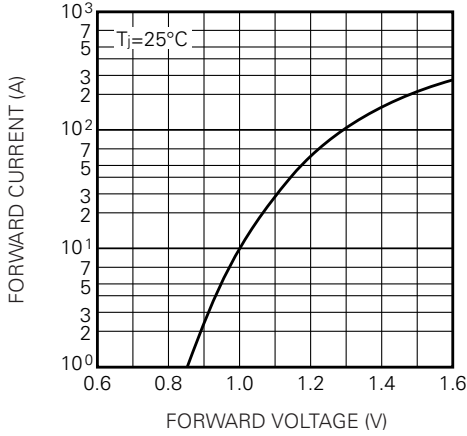
Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
I <sub>RRM</sub>	Repetitive reverse current	T <sub>j</sub> =125°C, VRRM applied	—	—	10	mA
V <sub>FM</sub>	Forward voltage	T <sub>j</sub> =25°C, I <sub>FM</sub> =60A, instantaneous meas.	—	—	1.2	V
R <sub>th(j-c)</sub>	Thermal resistance	Junction to case	—	—	0.3	°C/W
R <sub>th(c-f)</sub>	Contact thermal resistance	Case to fin, conductive grease applied	—	—	0.04	°C/W
—	Insulation resistance	Measured with a 500V megohmmeter between main terminal and case	10	—	—	MΩ

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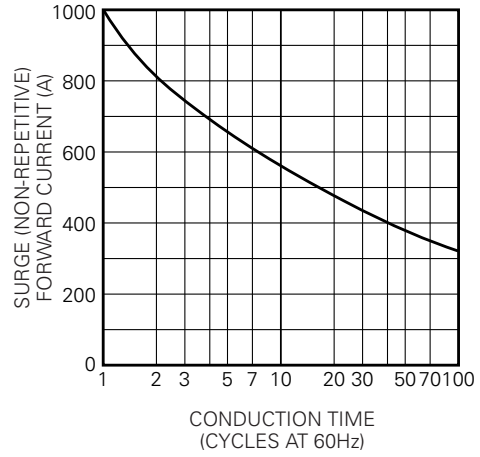
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## PERFORMANCE CURVES

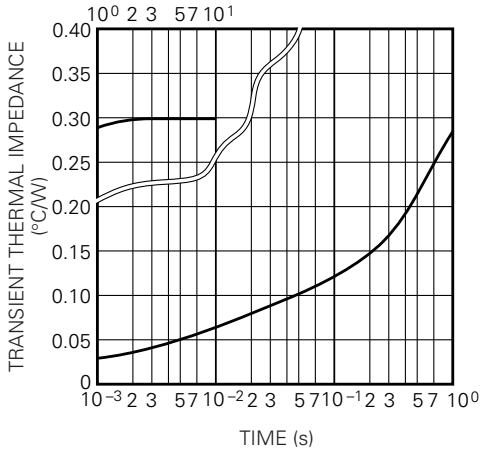
MAXIMUM FORWARD CHARACTERISTIC



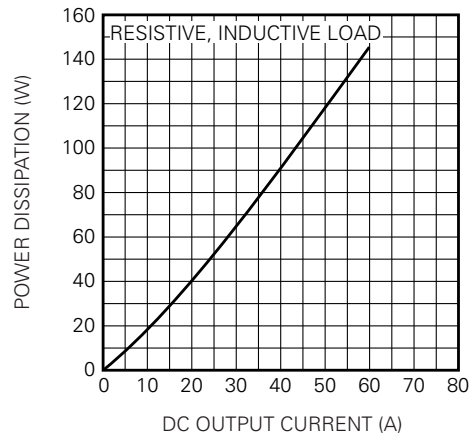
ALLOWABLE SURGE (NON-REPETITIVE) FORWARD CURRENT



MAXIMUM TRANSIENT THERMAL IMPEDANCE (JUNCTION TO CASE)



MAXIMUM POWER DISSIPATION



ALLOWABLE CASE TEMPERATURE VS. DC OUTPUT CURRENT

