

**PRELIMINARY**  
 Notice: This is not a final specification.  
 Some parametric limits are subject to change.

MITSUBISHI FAST RECOVERY DIODE MODULE

# RM400DY-66S

HIGH POWER, HIGH SPEED SWITCHING USE  
 INSULATED TYPE

HVDi (High Voltage Diode) Module

## RM400DY-66S



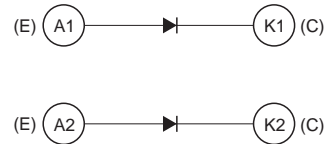
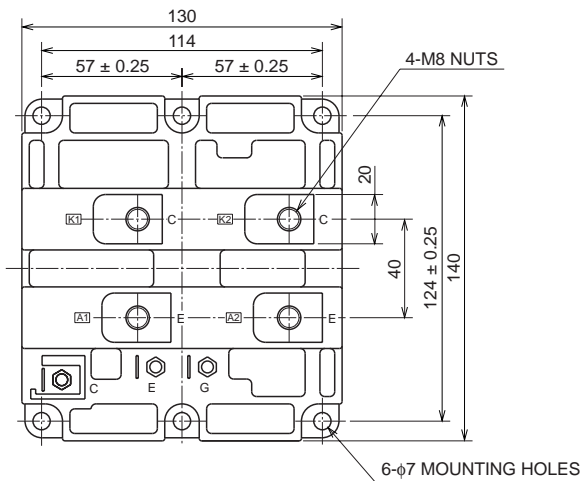
- IDC ..... 400A
- VRRM ..... 3300V
- Insulated type
- 2-elements in a pack

## APPLICATION

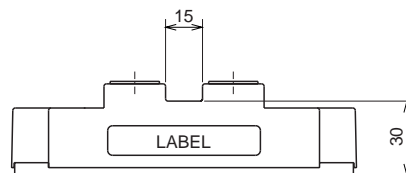
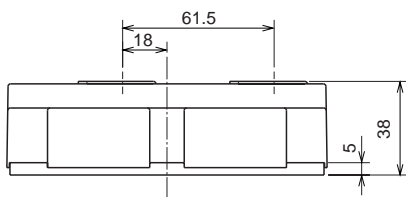
3-level inverters, 3-level converters, DC choppers.

## OUTLINE DRAWING & CIRCUIT DIAGRAM

Dimensions in mm



CIRCUIT DIAGRAM



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**ABSOLUTE MAXIMUM RATINGS (T<sub>j</sub> = 25°C)**

Symbol	Parameter	Voltage class		Unit
		66		
VRRM	Repetitive peak reverse voltage	3300		V
VDRM	Non-repetitive peak reverse voltage	3300		V
VR(DC)	Reverse DC voltage	2200		V

Symbol	Parameter	Conditions	Ratings	Unit
I <sub>DC</sub>	DC current	T <sub>c</sub> = 25°C	400	A
I <sub>FMS</sub>	Surge (non-repetitive) forward current	1 cycle of half wave 60Hz, peak value, T <sub>j</sub> = 25°C start, V <sub>RM</sub> = 0V	3200	A
I <sup>2</sup> <sub>t</sub>	I <sup>2</sup> <sub>t</sub> for fusing	Value of one cycle surge current, t <sub>w</sub> = 8.3ms, T <sub>j</sub> = 25°C start	4.27 × 10 <sup>4</sup>	A <sup>2</sup> s
T <sub>j</sub>	Junction temperature	—	-40 ~ +150	°C
T <sub>stg</sub>	Storage temperature	—	-40 ~ +125	°C
V <sub>iso</sub>	Isolation Voltage	Main terminal to case, 60Hz, sinusoidal, AC, 1min, rms	6000	V
—	Mounting torque	Main terminals screw : M6	6.67 ~ 8.24	N · m
—		Mounting screw : M6	2.84 ~ 3.43	N · m
—	Weight	Typical value	1.5	kg

**ELECTRICAL CHARACTERISTICS (T<sub>j</sub> = 25°C)**

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
I <sub>RRM</sub>	Repetitive reverse current	VRRM applied, V <sub>RM</sub> = VRRM	—	—	3	mA
V <sub>FM</sub>	Forward voltage	I <sub>FM</sub> = 400A, t <sub>w</sub> ≤ 1ms	—	3.30	4.29	V
t <sub>rr</sub>	Reverse recovery time	I <sub>FM</sub> = 400A, di <sub>F</sub> /dt = -800A/μs,	—	—	1.20	μs
Q <sub>rr</sub>	Reverse recovery charge	V <sub>R</sub> = 1650V	—	100	—	μC
R <sub>th(j-c)</sub>	Thermal resistance	Junction to case (Per 1/2 module)	—	—	0.072	°C/W
R <sub>th(c-f)</sub>	Contact thermal resistance	Case to fin, thermal grease applied (Per 1/2 module)	—	0.036	—	°C/W