

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

MITSUBISHI FAST RECOVERY DIODE MODULE

# RM600DY-66S

HIGH POWER SWITCHING USE  
 INSULATED TYPE

HVDi (High Voltage Diode) Module

## RM600DY-66S



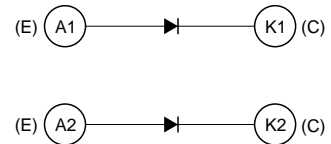
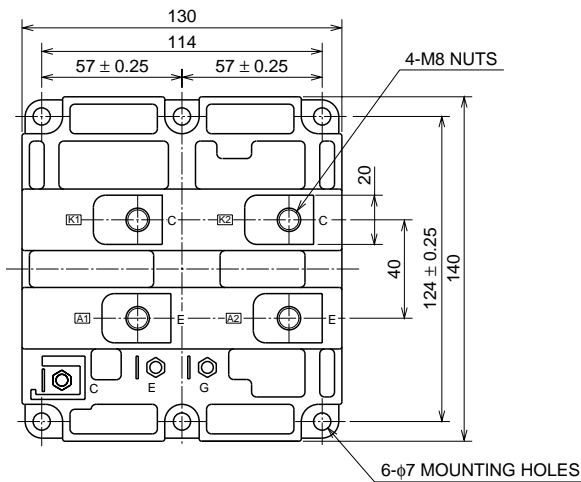
- IDC ..... 600A
- VRRM ..... 3300V
- Insulated type
- 2-element in a pack

## APPLICATION

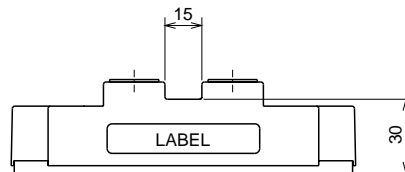
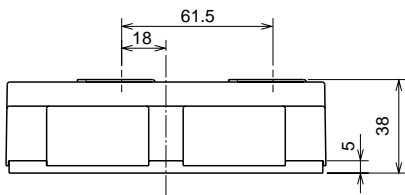
3-level inverters, 3-level converters, DC choppers.

## OUTLINE DRAWING & CIRCUIT DIAGRAM

Dimensions in mm



CIRCUIT DIAGRAM



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

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

Symbol	Item	Conditions	Ratings	Unit
IDC	Output DC current	T <sub>c</sub> = 25°C	600	A
IFMS	Surge (non-repetitive) forward current	1 cycle of half wave 60Hz, peak value, non-repetitive, T <sub>j</sub> = 25°C start, V <sub>RM</sub> = 0V	4800	A
I <sup>2</sup> t	I <sup>2</sup> t for fusing	Value of one cycle surge current, tw = 8.3ms, T <sub>j</sub> = 25°C start	9.60 × 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	Charged part to base plate, rms, sinusoidal, AC 60Hz 1min.	6000	V
—	Mounting torque	Main terminals screw M8	6.67 ~ 13.00	N · m
		Mounting screw M6	2.84 ~ 6.00	N · m
—	Mass	Typical value	1.5	kg

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

Symbol	Item	Test conditions	Limits			Unit
			Min	Typ	Max	
IRRM	Repetitive reverse current	VRRM applied, V <sub>RM</sub> = VRRM	—	—	4	mA
V <sub>FM</sub>	Forward voltage	I <sub>FM</sub> = 600A	—	3.50	4.55	V
t <sub>rr</sub>	Reverse recovery time	I <sub>FM</sub> = 600A, di <sub>r</sub> /dt = -1200A/μs,	—	—	1.20	μs
Q <sub>rr</sub>	Reverse recovery charge	V <sub>R</sub> = 1650V	—	150	—	μC
R <sub>th(j-c)</sub>	Thermal resistance	Junction to case (Per 1/2 module)	—	—	0.048	K/W
R <sub>th(c-f)</sub>	Contact thermal resistance	Case to fin, conductive grease applied (Per 1/2 module)	—	0.024	—	K/W

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**PERFORMANCE CURVES**

81.563

