MITSUBISHI FAST RECOVERY DIODE MODULES

RM200DA-20F,-24F

HIGH SPEED SWITCHING USE
INSULATED TYPE

RM200DA-20F,-24F



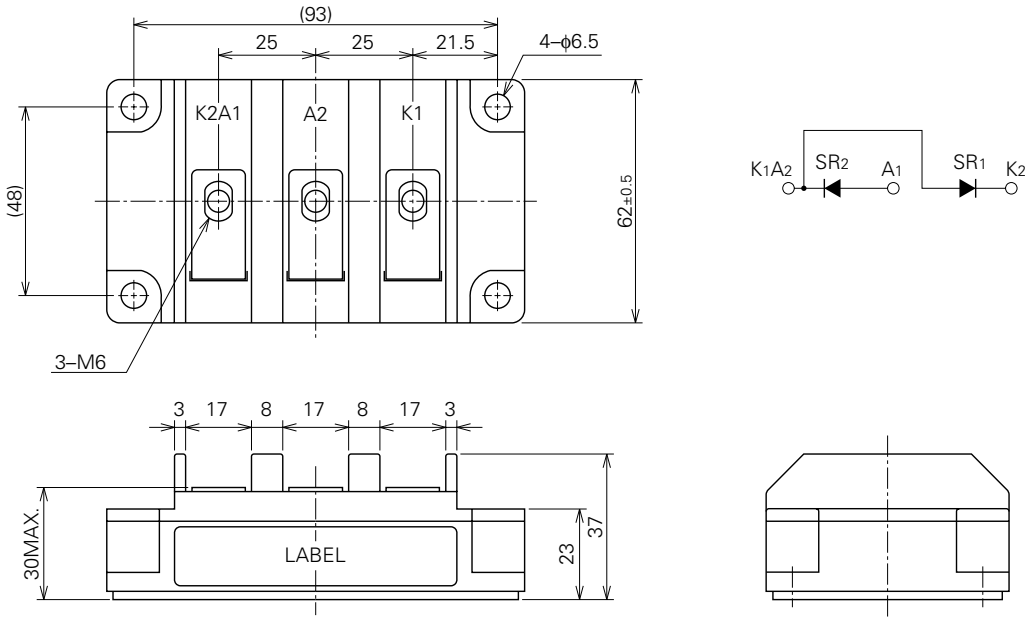
- **I_{DC}** DC current **200A**
- **V_{RRM}** Repetitive peak reverse voltage **1000/1200V**
- **t_{rr}** Reverse recovery time **0.8μs**
- **Insulated Type**
- **UL Recognized**
  Yellow Card No. E80276 (N)
  File No. E80271

APPLICATION

Free wheel use, Welders

OUTLINE DRAWING & CIRCUIT DIAGRAM

Dimensions in mm



MITSUBISHI ELECTRIC

RM200DA-20F,-24F

HIGH SPEED SWITCHING USE
INSULATED TYPE

ABSOLUTE MAXIMUM RATINGS (T_j=25°C)

Symbol	Parameter	Voltage class		Unit
		20	24	
V_{RRM}	Repetitive peak reverse voltage	1000	1200	V
V_{DRM}	Non-repetitive peak reverse voltage	1100	1350	V
$V_{R\ (DC)}$	Reverse DC voltage	800	960	V

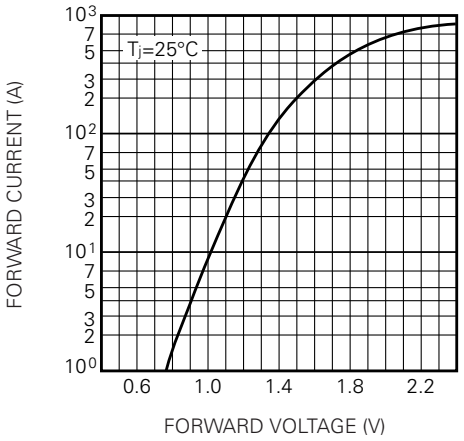
Symbol	Parameter	Conditions	Ratings	Unit
I_{DC}	DC current	Resistive load, T_C=75°C	200	A
I_{FSM}	Surge (non-repetitive) forward current	One half cycle at 60Hz, peak value	4000	A
I^2t	I^2t for fusing	Value for one cycle surge current	1.65×10^4	A^2s
T_j	Junction temperature		–40~+150	°C
T_{stg}	Storage temperature		–40~+125	°C
V_{iso}	Isolation voltage	Charged part to case	2500	V
—	Mounting torque	Main terminal screw M6	1.96~2.94	N·m
			20~30	kg·cm
		Mounting screw M6	1.96~2.94	N·m
			20~30	kg·cm
—	Weight	Typical value	460	g

ELECTRICAL CHARACTERISTICS

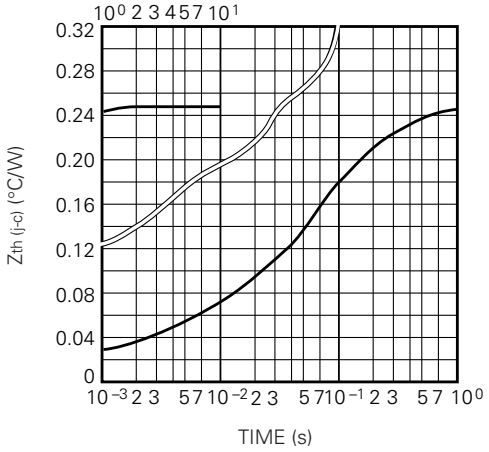
Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
I_{RRM}	Repetitive reverse current	T_j=150°C, V_{RRM} applied	—	—	40	mA
V_{FM}	Forward voltage	T_j=25°C, I_{FM}=200A, Instantaneous meas.	—	—	1.5	V
t_{rr}	Reverse recovery time	I_{FM}=200A, T_j=150°C, di/dt=–400A/μs, V_R=600V	—	—	0.8	μs
Q_{rr}	Reverse recovery charge		—	—	130	μC
$R_{th\ (j-c)}$	Thermal resistance	Junction to case	—	—	0.25	°C/W
$R_{th\ (c-f)}$	Contact thermal resistance	Case to fin, conductive grease applied	—	—	0.4	°C/W

PERFORMANCE CURVES

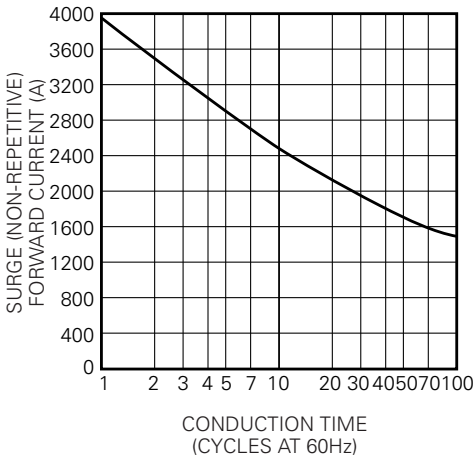
MAXIMUM FORWARD CHARACTERISTIC



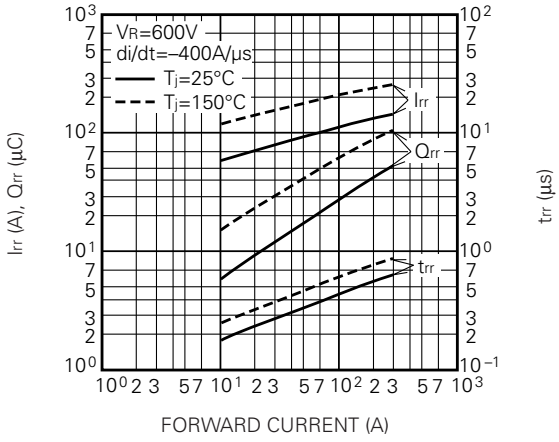
MAXIMUM TRANSIENT THERMAL IMPEDANCE (JUNCTION TO CASE)



RATED SURGE (NON-REPETITIVE) FORWARD CURRENT



REVERSE RECOVERY CHARACTERISTICS VS. FORWARD CURRENT (TYPICAL)



REVERSE RECOVERY CHARACTERISTICS VS. –di/dt (TYPICAL)

