

MITSUBISHI DIODE MODULES

RM100SZ-6S,-6R

MEDIUM POWER GENERAL USE
NON-INSULATED TYPE

RM100SZ-6S,6R



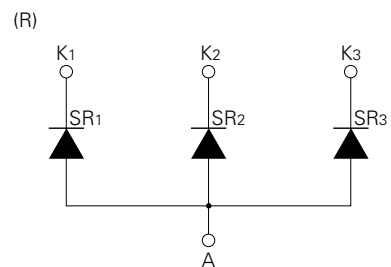
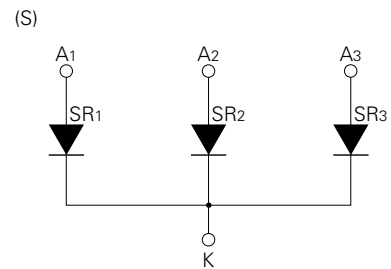
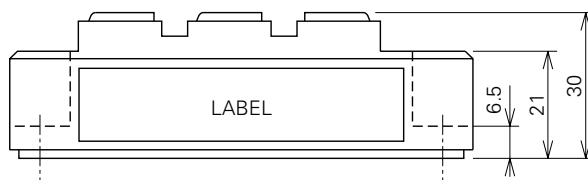
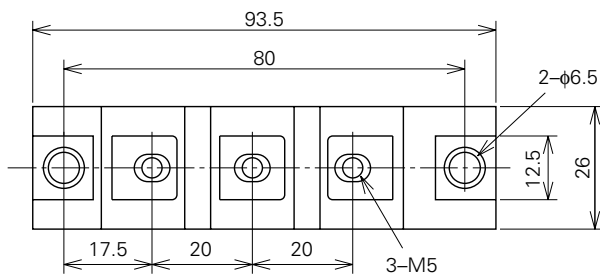
- **IF(AV)** Average forward current **100A**
- **VRRM** Repetitive peak reverse voltage **300V**
- **TRIPLE ARMS**
- **Non-Insulated Type**

APPLICATION

Welders

OUTLINE DRAWING & CIRCUIT DIAGRAM

Dimensions in mm



RM100SZ-6S,-6R

**MEDIUM POWER GENERAL USE
INSULATED TYPE**

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Voltage class	Unit
		6	
VRRM	Repetitive peak reverse voltage	300	V
VRSM	Non-repetitive peak reverse voltage	400	V
VR (DC)	Reverse DC voltage	240	V

Symbol	Parameter	Conditions	Ratings	Unit
IF (RMS)	RMS forward current		157	A
IF (AV)	Average forward current	Three-phase, half wave average current, Tc=125°C	100	A
IFSM	Surge (non-repetitive) forward current	One half cycle at 60Hz, peak value	2000	A
I ² _t	I ² _t for fusing	Value for one cycle of surge current	1.7 × 10 ⁴	A ² s
f	Maximum operating frequency		1000	Hz
T _j	Junction temperature		−40~150	°C
T _{stg}	Storage temperature		−40~125	°C
—	Mounting torque	Main terminal screw M5	1.47~1.96	N·m
			15~20	kg·cm
		Mounting screw M6	1.96~2.94	N·m
			20~30	kg·cm
—	Weight	Typical value	130	g

ELECTRICAL CHARACTERISTICS

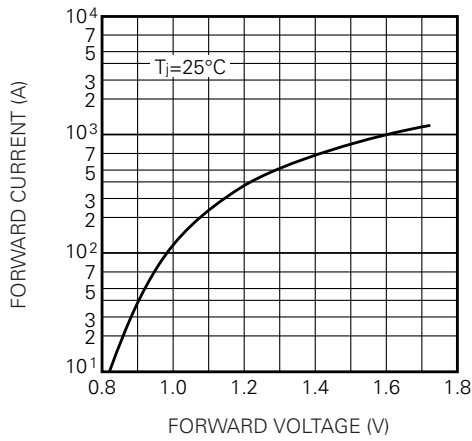
Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
I _{RRM}	Repetitive reverse current	T _j =150°C, VRRM applied	—	—	1.5	mA
V _{FM}	Forward voltage	T _j =25°C, I _{FM} =300A, instantaneous meas.	—	—	1.15	V
R _{th (j-c)}	Thermal resistance	Junction to case (per 1/3 module)	—	—	0.2	°C/W
R _{th (c-f)}	Contact thermal resistance	Case to fin, conductive grease applied (per 1/3 module)	—	—	0.25	°C/W

RM100SZ-6S,-6R

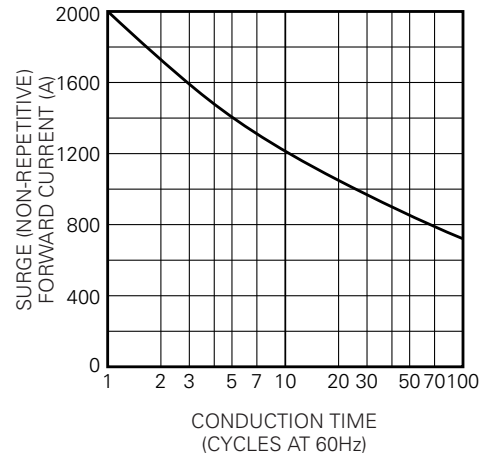
MEDIUM POWER GENERAL USE
NON-INSULATED TYPE

PERFORMANCE CURVES

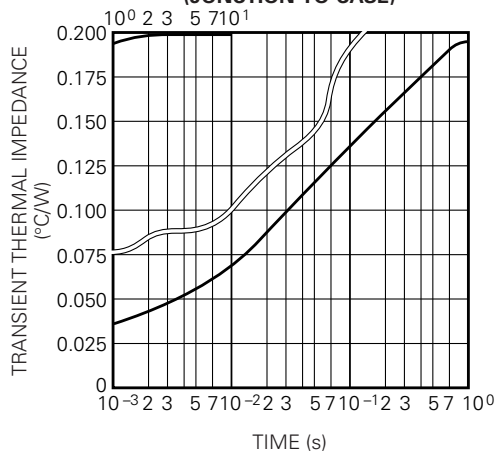
MAXIMUM FORWARD CHARACTERISTIC



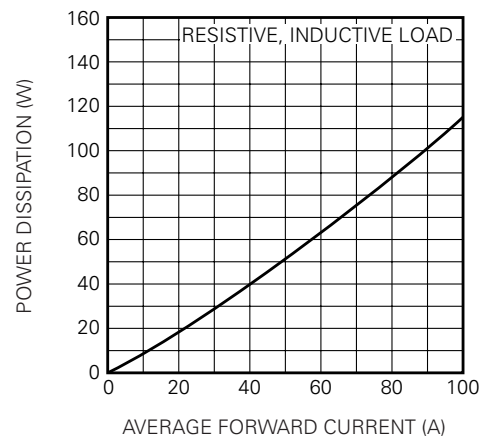
ALLOWABLE SURGE
(NON-REPETITIVE) FORWARD CURRENT



MAXIMUM TRANSIENT THERMAL IMPEDANCE
(JUNCTION TO CASE)



MAXIMUM POWER DISSIPATION



ALLOWABLE CASE TEMPERATURE
VS. AVERAGE FORWARD CURRENT

