

MITSUBISHI DIODE MODULES  
**RM100SZ-6S,-6R**

MEDIUM POWER GENERAL USE  
 NON-INSULATED TYPE

RM100SZ-6S,6R



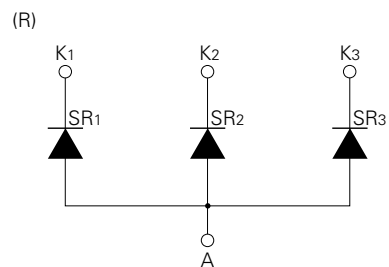
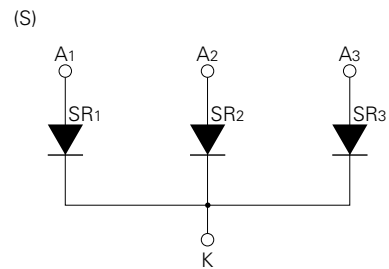
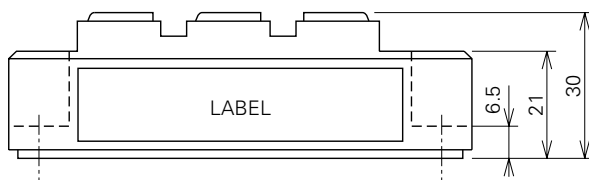
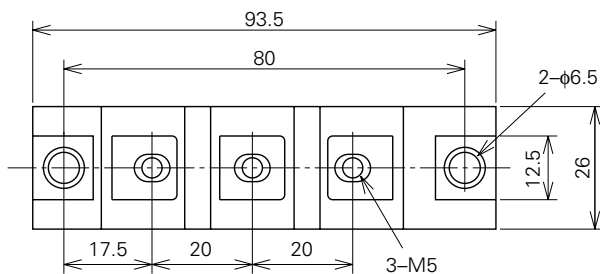
- **IF(AV)** Average forward current ..... **100A**
- **VRRM** Repetitive peak reverse voltage  
 ..... **300V**
- **TRIPLE ARMS**
- **Non-Insulated Type**

**APPLICATION**

Welders

**OUTLINE DRAWING & CIRCUIT DIAGRAM**

Dimensions in mm



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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 <sup>2</sup> <sub>t</sub>	I <sup>2</sup> <sub>t</sub> for fusing	Value for one cycle of surge current	1.7 × 10 <sup>4</sup>	A <sup>2</sup> s
f	Maximum operating frequency		1000	Hz
T <sub>j</sub>	Junction temperature		-40~150	°C
T <sub>stg</sub>	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**

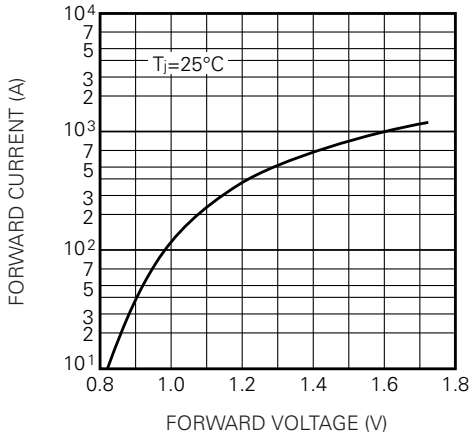
Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
I <sub>RRM</sub>	Repetitive reverse current	T <sub>j</sub> =150°C, V <sub>RRM</sub> applied	—	—	1.5	mA
V <sub>FM</sub>	Forward voltage	T <sub>j</sub> =25°C, I <sub>FM</sub> =300A, instantaneous meas.	—	—	1.15	V
R <sub>th (j-c)</sub>	Thermal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

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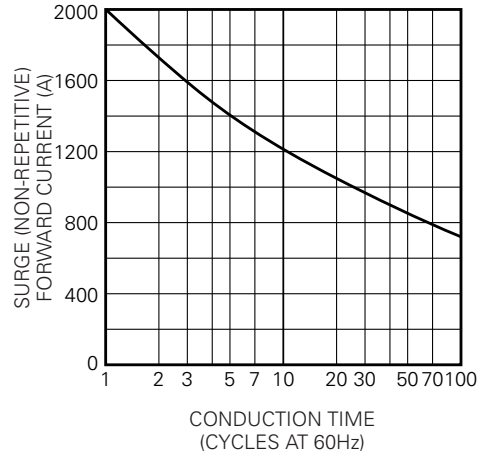
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## PERFORMANCE CURVES

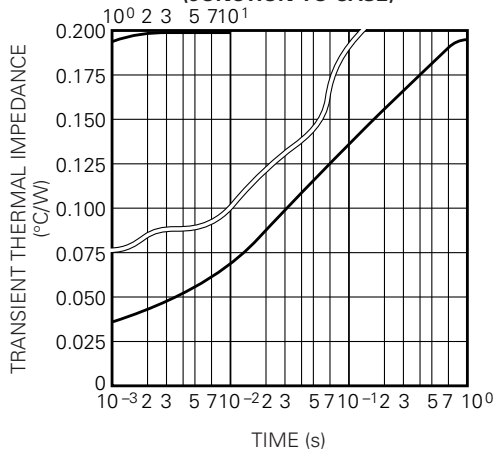
**MAXIMUM FORWARD CHARACTERISTIC**



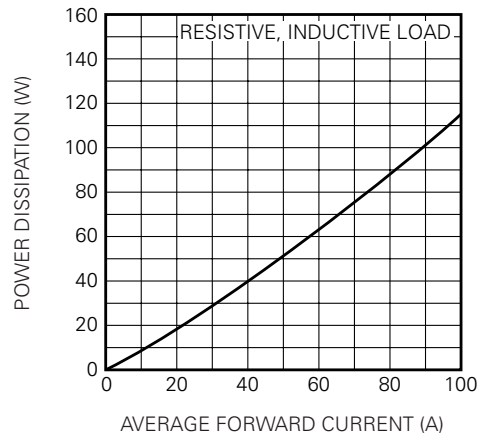
**ALLOWABLE SURGE (NON-REPETITIVE) FORWARD CURRENT**



**MAXIMUM TRANSIENT THERMAL IMPEDANCE (JUNCTION TO CASE)**



**MAXIMUM POWER DISSIPATION**



**ALLOWABLE CASE TEMPERATURE VS. AVERAGE FORWARD CURRENT**

