

MITSUBISHI DIODE MODULES
RM100SZ-6S,-6R

MEDIUM POWER GENERAL USE
 NON-INSULATED TYPE

RM100SZ-6S,6R



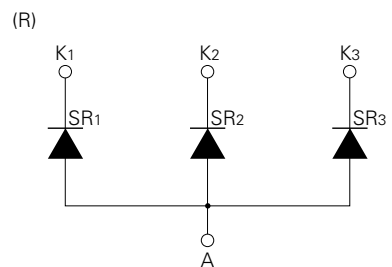
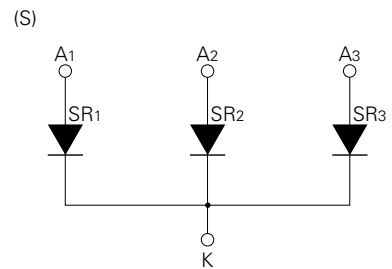
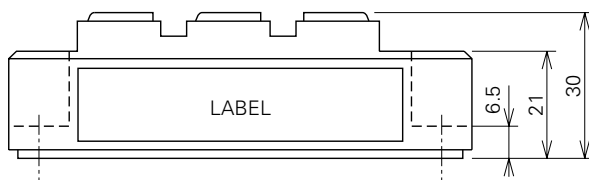
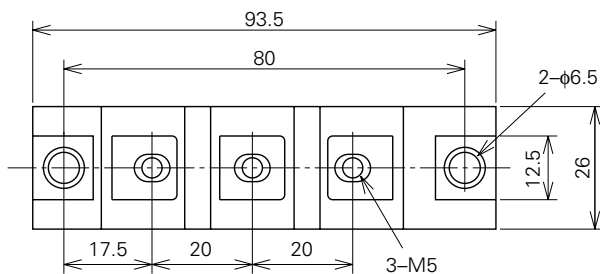
- **IF(AV)** Average forward current **100A**
- **VRRM** Repetitive peak reverse voltage
 **300V**
- **TRIPLE ARMS**
- **Non-Insulated Type**

APPLICATION

Welders

OUTLINE DRAWING & CIRCUIT DIAGRAM

Dimensions in mm



RM100SZ-6S,-6R

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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 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

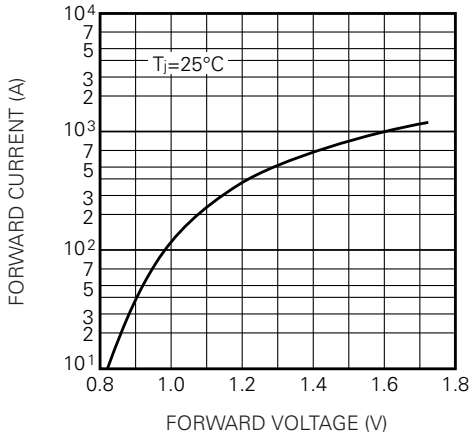
| Symbol | Parameter | Test conditions | Limits | | | Unit |
|-----------------------|----------------------------|--|--------|------|------|------|
| | | | Min. | Typ. | Max. | |
| I _{RRM} | Repetitive reverse current | T _j =150°C, V _{RRM} applied | — | — | 1.5 | mA |
| V _{FM} | Forward voltage | 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 |

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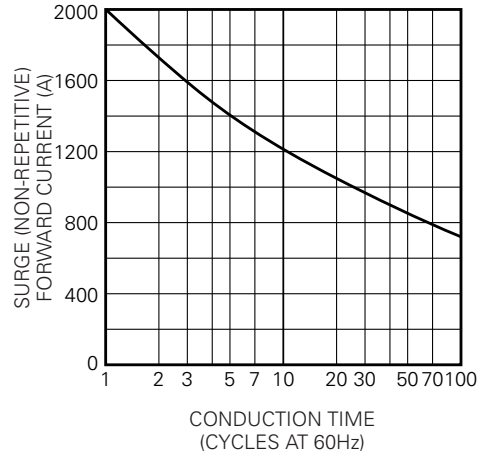
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PERFORMANCE CURVES

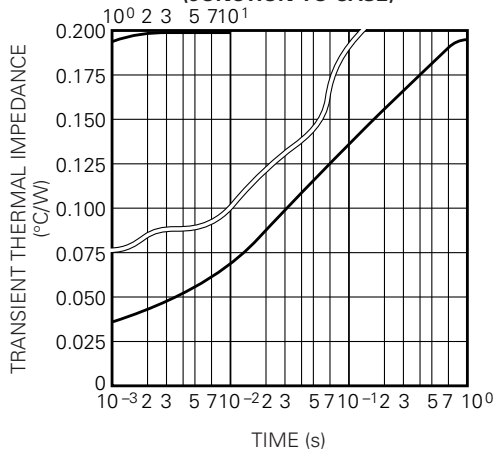
MAXIMUM FORWARD CHARACTERISTIC



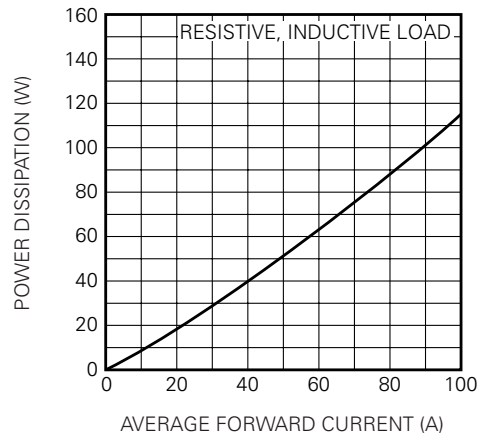
ALLOWABLE SURGE (NON-REPETITIVE) FORWARD CURRENT



MAXIMUM TRANSIENT THERMAL IMPEDANCE (JUNCTION TO CASE)



MAXIMUM POWER DISSIPATION



ALLOWABLE CASE TEMPERATURE VS. AVERAGE FORWARD CURRENT

