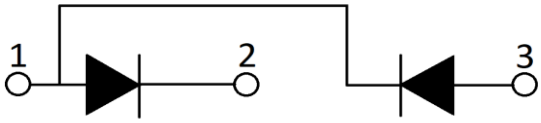
# MRS700.26

## *Diodes module*

### Features:

- Isolated mounting base 3000V~
- Pressure contact technology with increased power cycling capability
- Space and weight savings




### Typical applications:

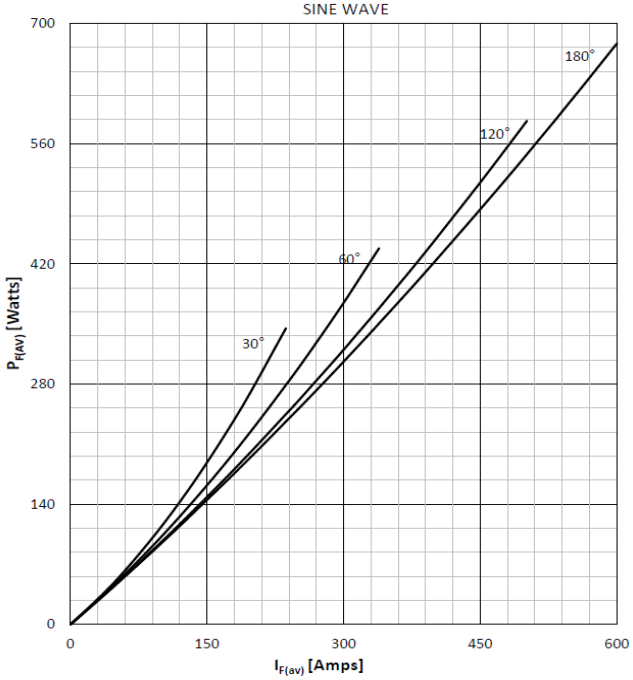
- AC/DC motor drives
- Various rectifiers
- DC supply for PWM inverter

| Symbol | Characteristcs | Test Conditions | Value | | | Unit |
|---|---|---|---|---|---|---|
| | | | Min | Typ | Max | |
| $V_{RSM/DSM}$ | Non-repetitive reverse/forward blocking voltage | Tj = 150°C | | | 2700 | V |
| $V_{RRM/DRM}$ | Repetitive reverse/forward blocking voltage | Tj = 150°C | | | 2600 | V |
| $I_{F(AV)}$ | Forward average current | 180° half sine wave 50Hz<br>$T_c$ = 85 °C | | | 720 | A |
| $I_{F(RMS)}$ | Forward square root current | 180° half sine wave 50Hz<br>$T_c$ = 106 °C | | | 595 | A |
| $I_{RRM}$<br>$I_{DRM}$ | Repetitive peak current | at $V_{DRM}$/$V_{RRM}$<br>Tj = 150°C | | | 40 | mA |
| $I_{FSM}$ | Forward surge current | 10ms half sine wave<br>without reverse voltage<br>Tj = 150°C | | | 29 | kA |
| $I^2t$ | $I^2t$ for fusing coordination | | | | 4205 | $kA^2s$ |
| $V_{FO}$ | Threshold voltage | Tj = 150°C | | | 0.914 | V |
| $r_F$ | Forward slope resistance | Tj = 150°C | | | 0.145 | mΩ |
| $V_{FM}$ | Peak forward voltage | Tj = 25°C ; $I_F$ = 1500A | | | 1.18 | V |
| $R_{th(j-c)}$ | Thermal resistance junction to case | Single side cooled per chip | | | 0.065 | °C/W |
| $R_{th(c-s)}$ | Thermal resistance case to sink | Single side cooled per chip | | | 0.020 | °C/W |
| $V_{ISO}$ | Isolation voltage | 50Hz, RMS, t = 1min,<br>$I_{ISO}$ : 1mA (MAX) | 3000 | | | V |
| $F_M$ | Mounting torque - copper plate (M6) | | | 6.0 | | N·m |
| | Mounting torque - terminal (M10) | | | 12.0 | | N·m |
| $T_{stg}$ | Storage Temperature | | -40 | | 150 | °C |
| $T_j$ | Operating Temperature | | -40 | | 150 | °C |
| $W_t$ | Weight | | | 1480 | | g |
| Outline | M90 | | | | | |

# MRS700.26

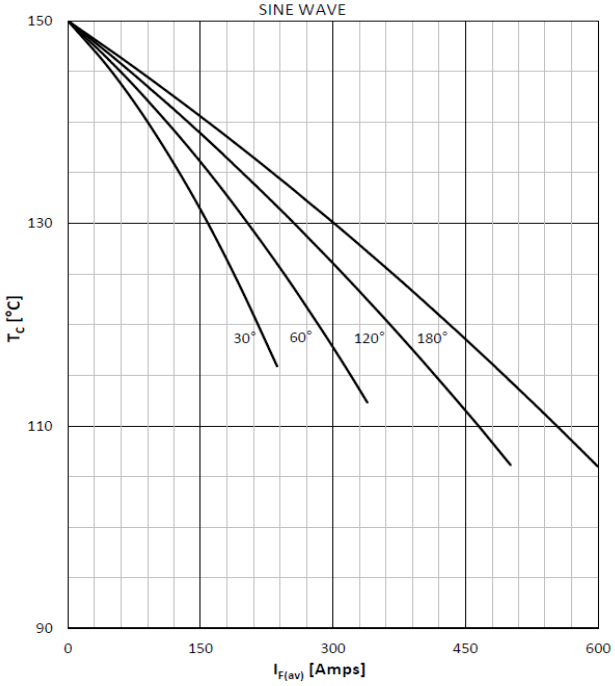
**DISSIPATION CHARACTERISTICS**

SINE WAVE



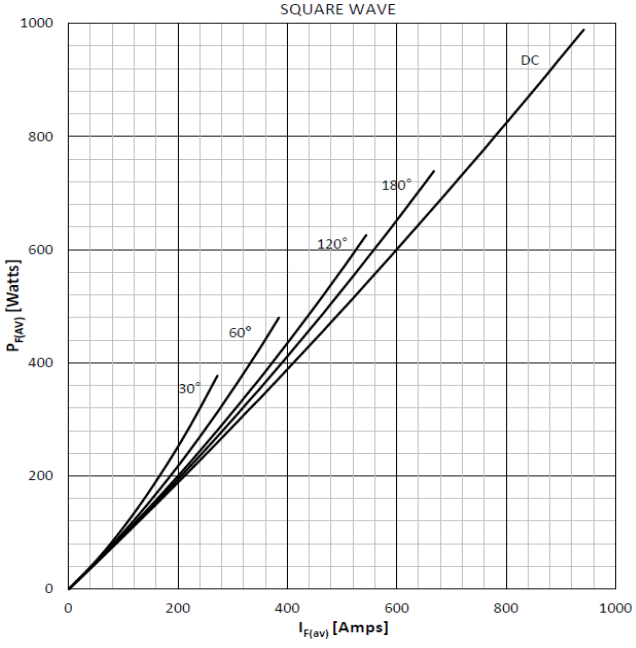

**FORWARD CURRENT DERATING CURVE**

SINE WAVE



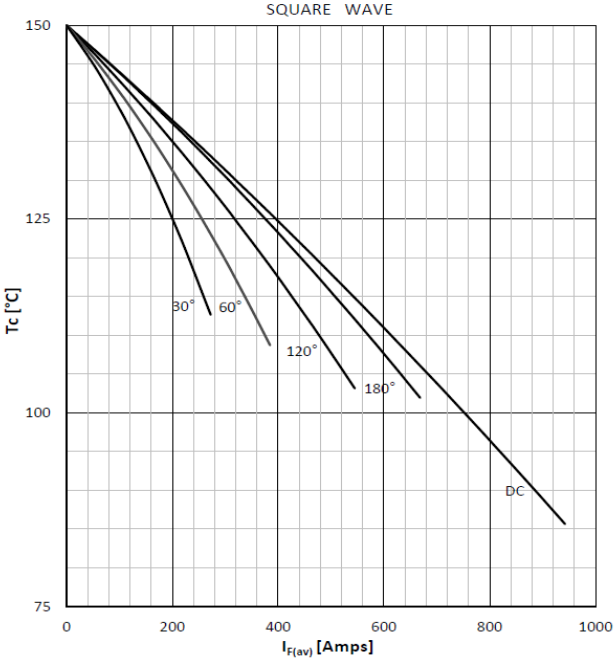

**DISSIPATION CHARACTERISTICS**

SQUARE WAVE



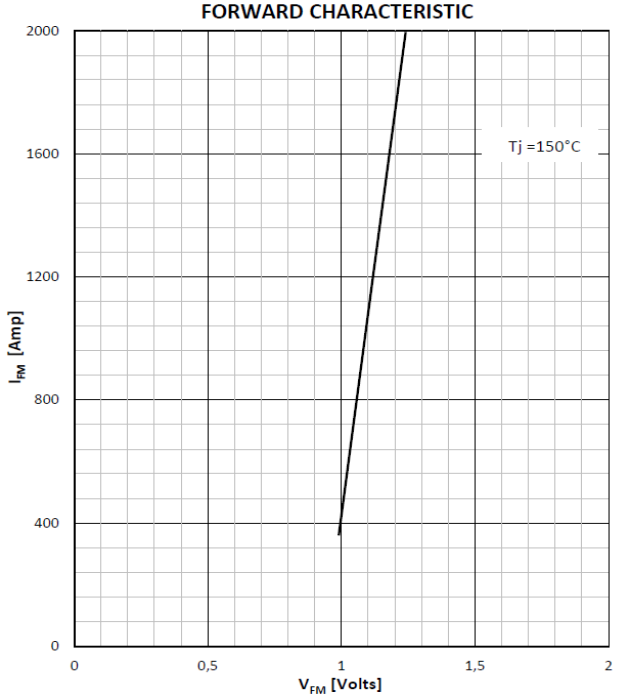

**FORWARD CURRENT DERATING CURVE**

SQUARE WAVE

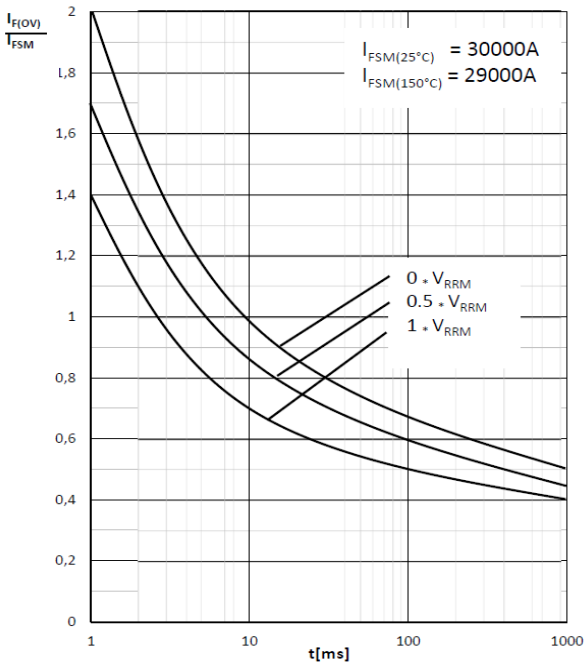


# MRS700.26

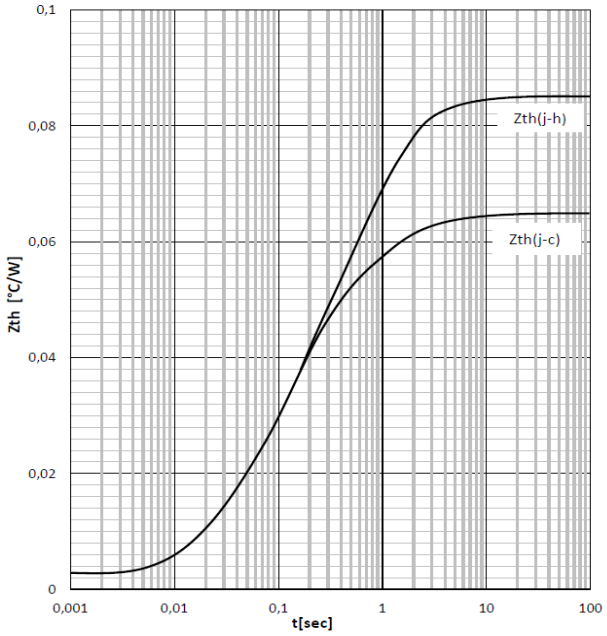
FORWARD CHARACTERISTIC

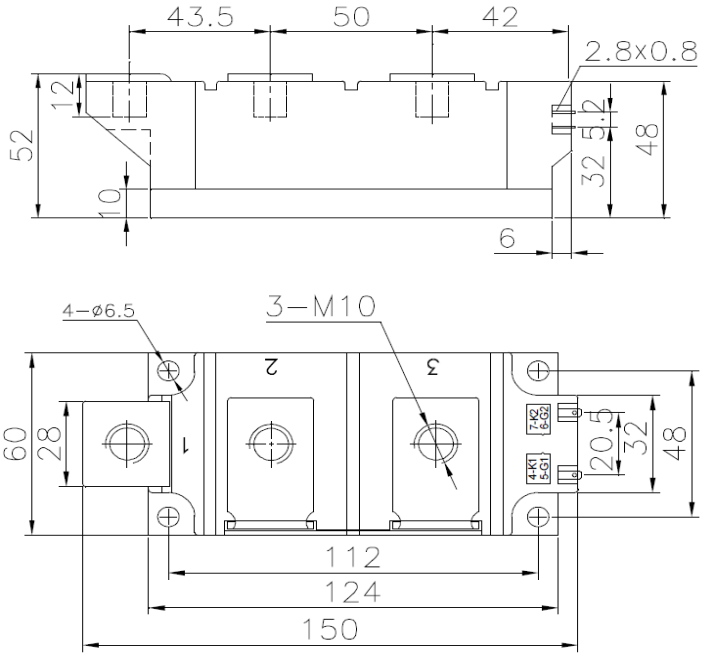



SURGE CHARACTERISTICS




TRANSIENT THERMAL IMPEDANCE




*(dimensions in mm)*

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