



Single Phase Diode Bridges MDQ50



Key Parameters

| | | | |
|-----------|---|----------|-------------------|
| I_D | = | 50 | A |
| V_{RRM} | = | 600-2000 | V |
| I^2t | = | 7.2 | kA ² s |
| V_{FO} | = | 0.80 | V |

Typical Application

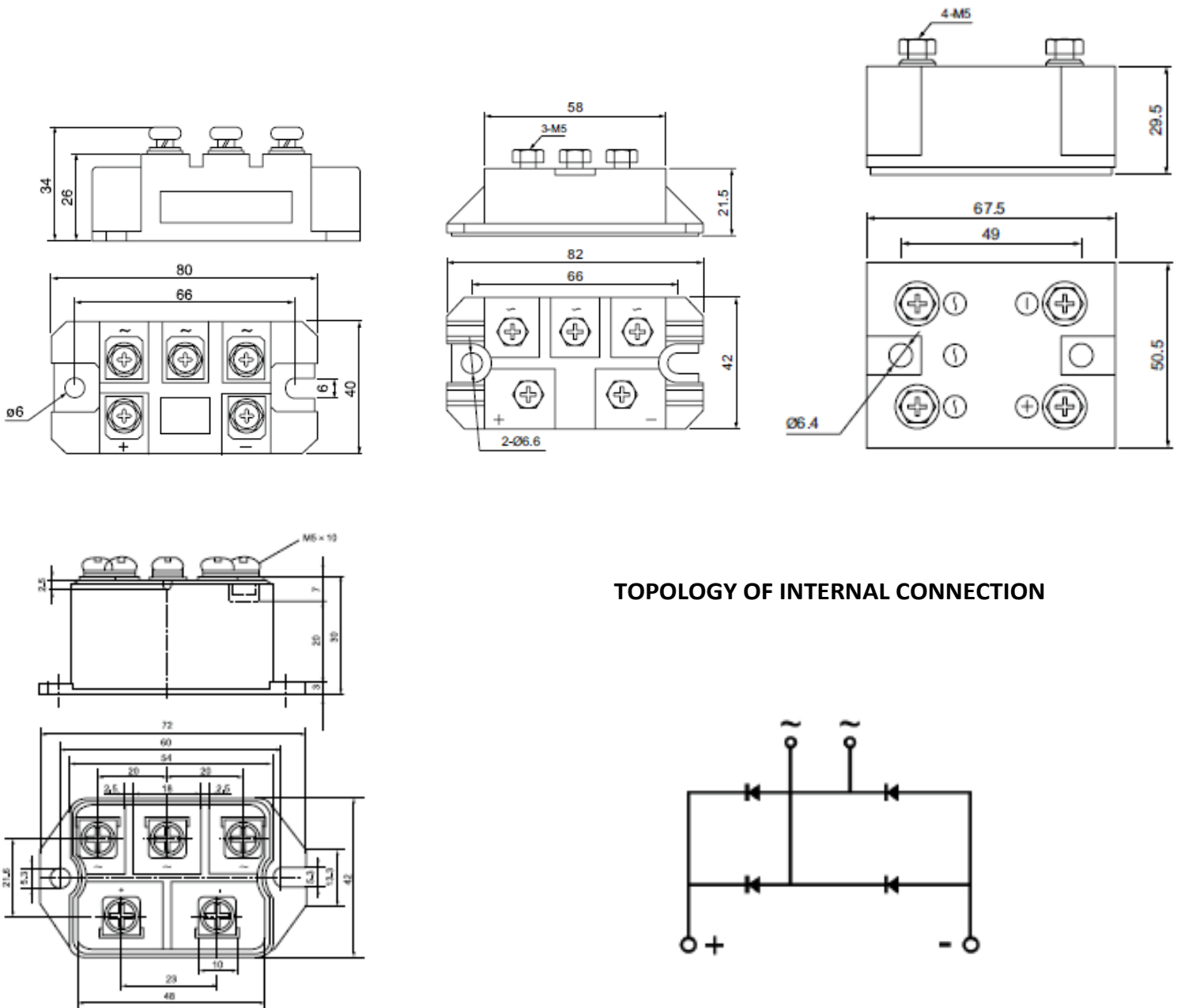
- Inversion welder, current charging DC power supply
- Excitation source for DC motor, input rectifying of switching power supply
- Charging of soft starting capacitor, electric towage and auxiliary current
- DC power supply of appliance and device, input rectifying power supply of PWM frequency transformer

MAXIMUM ALLOWABLE RATINGS

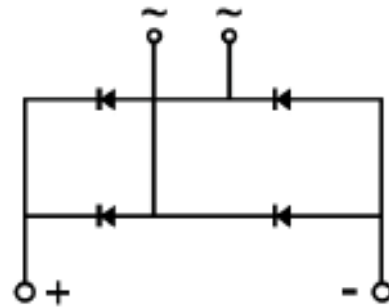
| Symbols and parameters | | Maximum Limits | Unit |
|------------------------|---|----------------|-------------------|
| I_D | Direct output current | 50 | A |
| V_{RRM} | Max. repetitive peak reverse blocking voltage | 600-2000 | V |
| I_{RRM} | Maximum repetitive peak reverse current | 8 | mA |
| I_{FSM} | Surge peak forward current | 0.75 | kA |
| I^2t | Safety factor | 7.2 | kA ² s |
| V_{FO} | Threshold voltage | 0.80 | V |
| r_F | Slope resistance | 7.0 | mΩ |
| V_{FM} | Peak on-state voltage | 1.55 | V |
| $R_{th(j-c)}$ | Thermal resistance, node to shell | 0.20 | °C/W |
| $R_{th(c-h)}$ | Thermal resistance, shell to powder | 0.15 | °C/W |

| | | | |
|-------------------------|--------------------|-----------|----|
| V_{isol} | Isolation voltage | 2500 | V |
| F_M | Mounting torque | 4-6 | mN |
| T_{stg} | Stored temperature | -40...125 | °C |
| W | Weight | 210 | g |

DIMENSIONS



TOPOLOGY OF INTERNAL CONNECTION



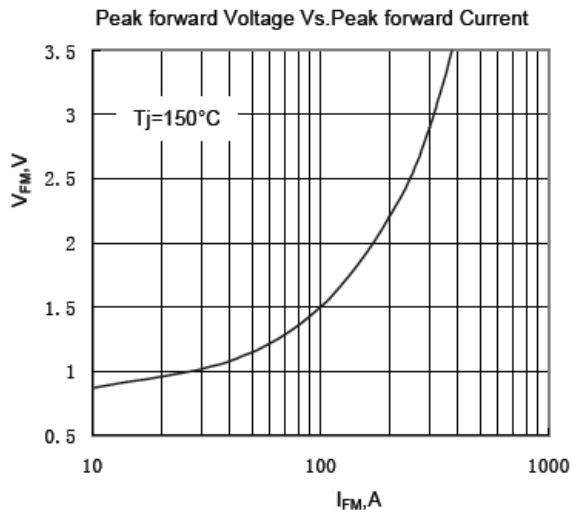


Fig.1

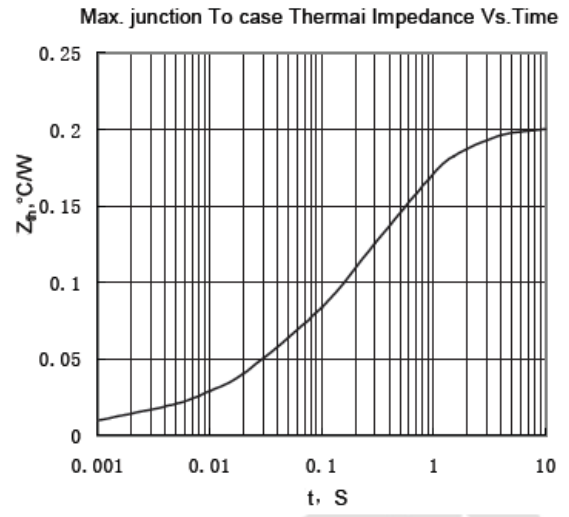


Fig.2

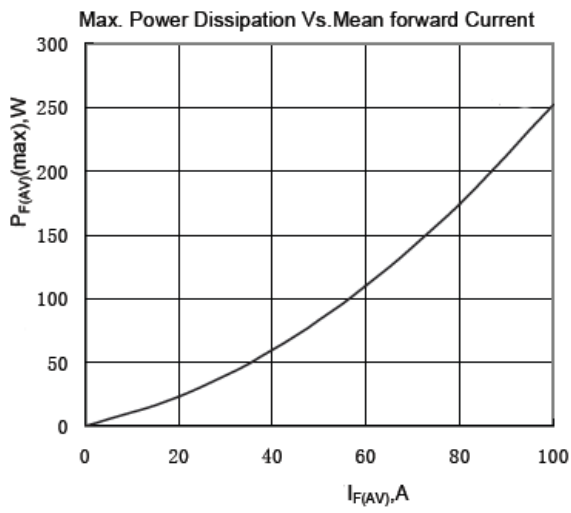


Fig.3

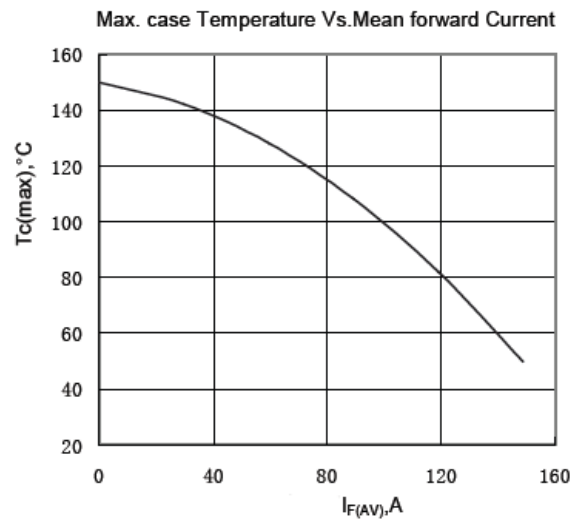


Fig.4

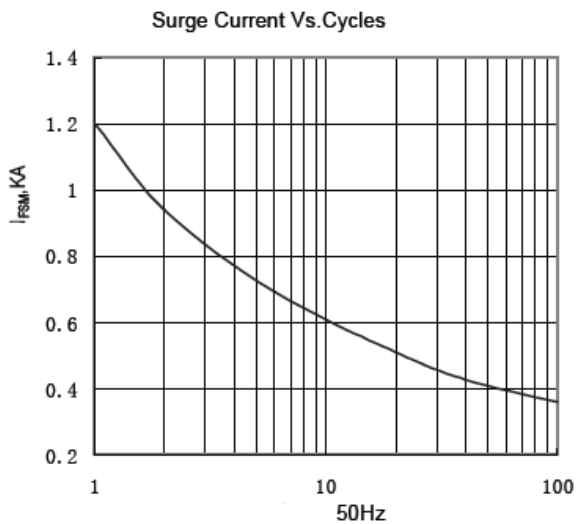


Fig.5

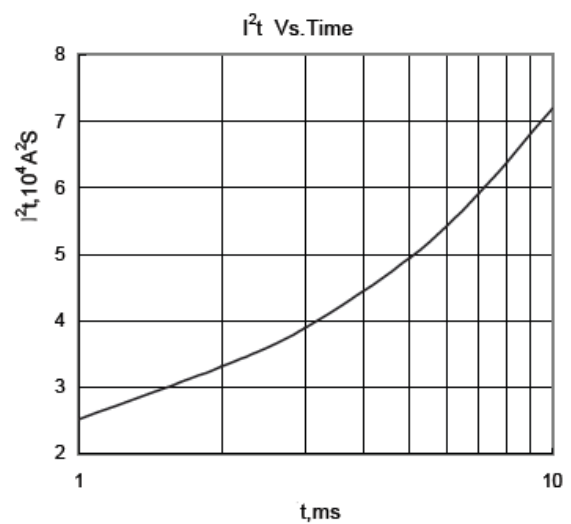


Fig.6