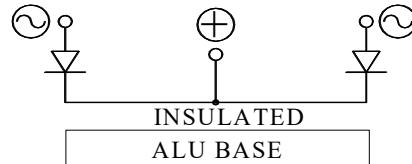


MM600.02IS

INSULATED FAST RECOVERY DIODE MODULE

Output Current **600 A**

Blocking Voltage **200 V**



| V_{RRM} [V] | V_{RSM} [V] | V_{OUT} [V] | P/N |
|------------------|------------------|------------------|------------|
| 200 | 300 | 65 | MM600.02IS |
| | | | |
| | | | |
| | | | |
| | | | |

Features

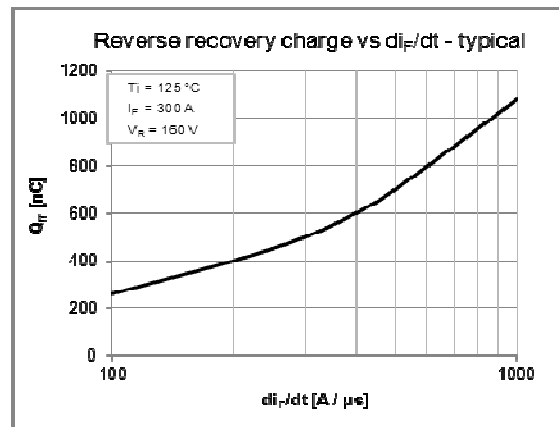
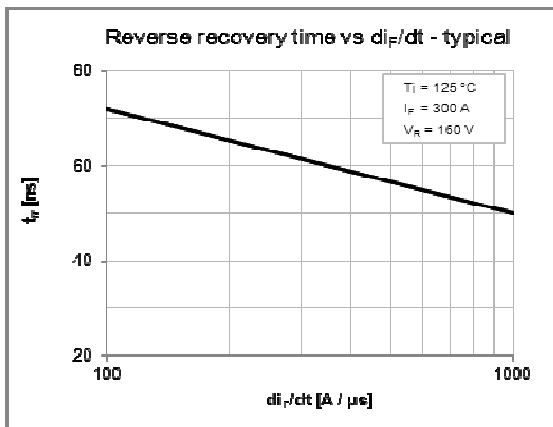
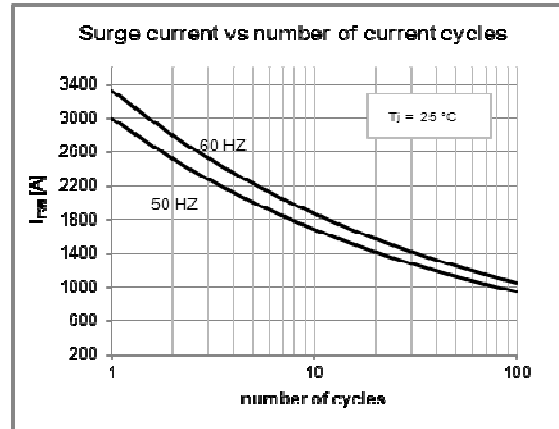
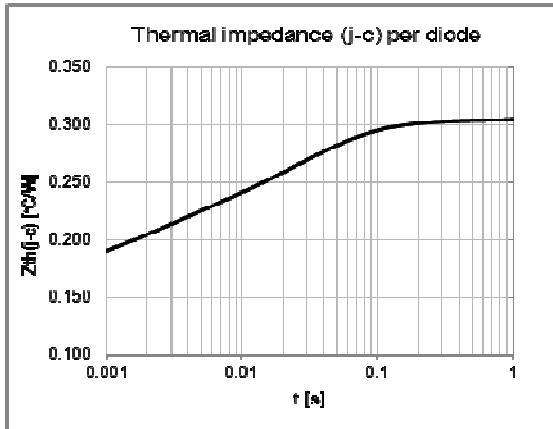
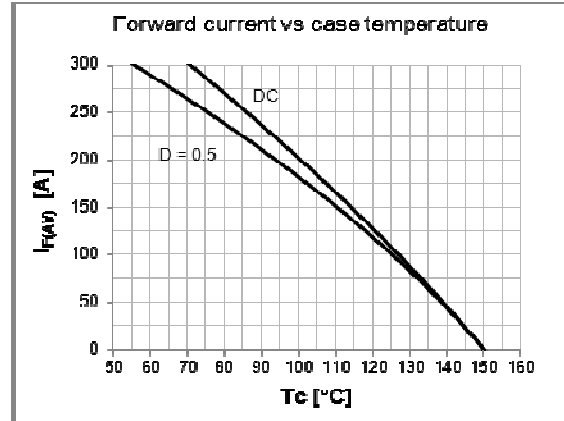
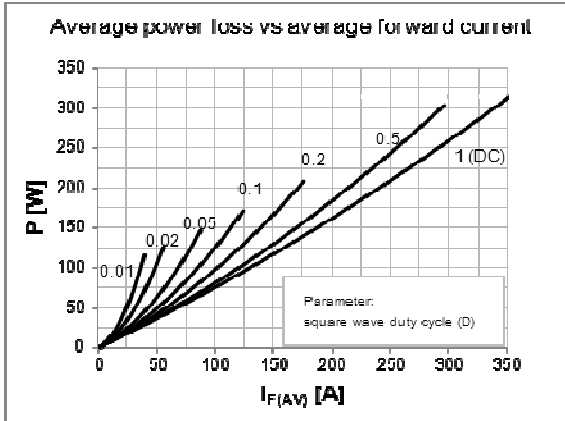
- Short recovery time
- Low switching losses
- Soft recovery behavior
- Electrically insulated case

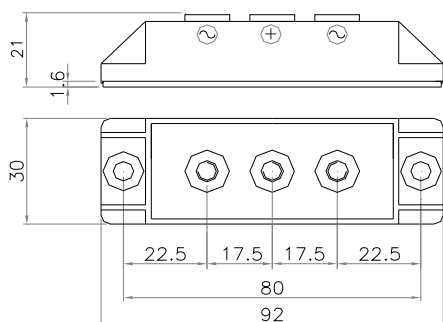
Applications

- Antiparallel diode for high frequency switching devices
- Free-wheeling diode in converters or motor controllers
- Uninterruptible power supplies (UPS)
- Ultrasonic cleaners and welders

| Diodes characteristics | | Conditions | T_j [°C] | Value |
|------------------------|---------------------------------------|--|------------|------------------------|
| $I_{F(AV)}$ | Average forward current | $T_c = 56^\circ\text{C}$ | | 300 A |
| I_{FRM} | Repetitive forward current, max | Square wave, 20 kHz | | 500 A |
| I_{RRM} | Max repetitive peak reverse current | $V = V_{RRM}$ | 150 | 2 mA |
| $V_{F(TO)}$ | Threshold voltage | | 150 | 0,7 V |
| r_F | Forward slope resistance | | 150 | 0,6 m Ω |
| V_{FM} | Peak forward voltage, max | $I_F = 300\text{ A}$ | 150 | 1,1 V |
| I_{FSM} | Surge forward current | Half sine wave, 10 ms | 25 | 3000 A |
| I^2t | Max I^2t for fusing | | 25 | 45000 A ² s |
| C_T | Junction capacitance, typ | $V = V_{RRM}$ | 25 | 360 pF |
| Q_{rr} | Reverse recovery charge, typ | $I_F = 300\text{ A}$ | 125 | 400 nC |
| I_{rr} | Reverse recovery current, typ | $V_R = 160\text{ V}$ | | 13 A |
| t_{rr} | Reverse recovery time, typ | $dI_F / dt = 200\text{ A} / \mu\text{s}$ | | 65 ns |
| T_{jmax} | Operating junction temperature | | | -40 / 150 °C |
| $R_{th(j-c)}$ | Thermal resistance (junction to case) | | | 0,30 °C/W |

| Module characteristics | | Conditions | Value |
|------------------------|--|--|------------|
| I_{OUT} | Output current (center tap connection) | $T_c = 56^\circ\text{C}$ | 600 A |
| V_{INS} | RMS Insulating voltage | 50 / 60 Hz $t = 1\text{ s}$ ($i < 1\text{ mA}$) | 3600 V |
| V_{INS} | RMS Insulating voltage | 50 / 60 Hz $t = 60\text{ s}$ ($i < 1\text{ mA}$) | 3000 V |
| $R_{th(c-h)}$ | Thermal resistance (case to heatsink) | Mounting surface flat, smooth and greased | 0,100 °C/W |
| T_{stg} | Max storage temperature | | 150 °C |
| W | Weight | | 117 g |
| M_1 | Mounting torque, $\pm 15\%$ | | 5,5 N·m |
| | | | 48 lb·inch |
| M_2 | Terminal connection torque, $\pm 15\%$ | | 4,0 N·m |
| | | | 35 lb·inch |

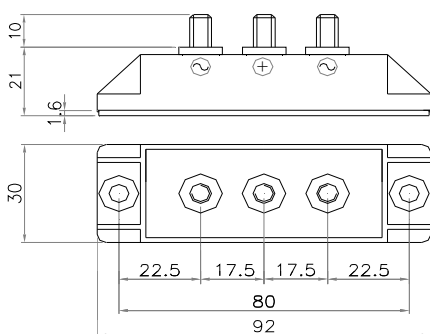



Fig.1 MM600.02IS-SS6-FIX5-HP-P80-TA

Code:MM50006000009

MM600.02IS-SS5-FIX5-HP-P80-TA

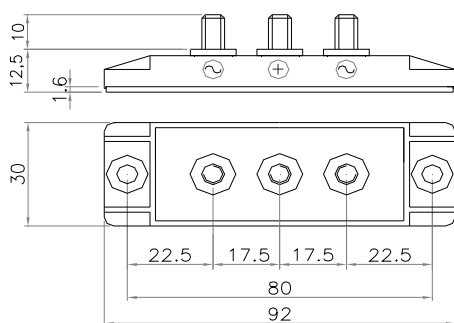
Code:MM50006000008


Fig.2 MM600.02IS-MM6x10-FIX5-HP-P80-TA

Code:MM50006000005

MM600.02IS-MM5x10-FIX5-HP-P80-TA

Code:MM50006000001


Fig.3 MM600.02IS-MM6x10-FIX5-LP-P80-TA

Code:MM50006000004

MM600.02IS-MM5x10-FIX5-LP-P80-TA

Code:MM50006000000

Power fix:
 SS=Screw (M6 or M5)
 MM=Bolt (M6 or M5)

Mounting fix:
 FIX= Ø5,5

Profile:
 HP=High Profile LP=Low Profile

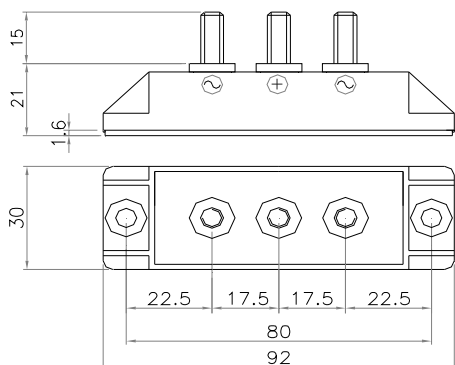


Fig. MM600.02IS-MM6x15-FIX5-HP-P80-TA

Code:MM50006000007

MM600.02IS-MM5x15-FIX5-HP-P80-TA

Code:MM50006000003

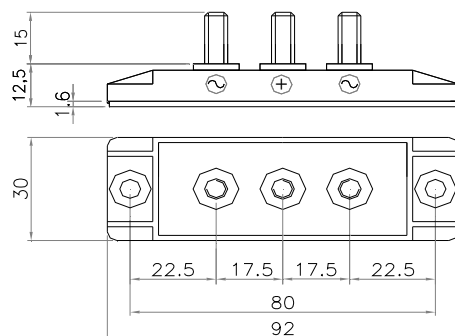


Fig.5 MM600.02IS-MM6x15-FIX5-LP-P80-TA

Code:MM50006000006

MM600.02IS-MM5x15-FIX5-LP-P80-TA

Code:MM50006000002

Power fix:
 SS=Screw (M6 or M5)
 MM=Bolt (M6 or M5)

Mounting fix:
 FIX= \varnothing 5,5

Profile:
 HP=High Profile LP=Low Profile