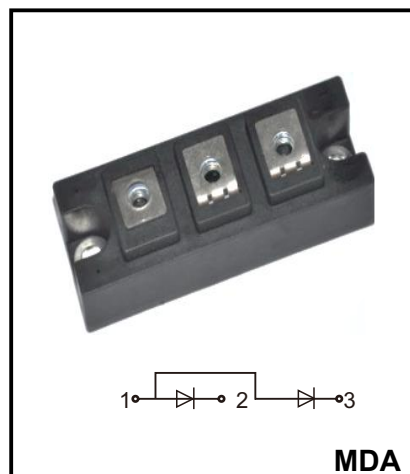


Rectifier Diode Module
Reverse Voltage : 1200 V - 1800 V
Forward Current : 200 A

Features

- ◆Industrial Standard Package
- ◆High Surge Current Capability
- ◆Low Leakage Current
- ◆Electrically Isolated by DBC Ceramic

Applications

- ◆Field Supply For DC Motors
- ◆DC supply for PWM inverter
- ◆Various Rectifiers

ABSOLUTE MAXIMUM RATINGS (Tc=25°C unless otherwise specified)

| Symbol | Parameter | Test Conditions | MDA200-12 | MDA200-16 | MDA200-18 | Unit |
|---------------|---|--|-------------|-----------|-----------|-------------------|
| V_{RRM} | Maximum Repetitive Peak Reverse Voltage | | 1200 | 1600 | 1800 | V |
| V_{RMS} | Maximum RMS voltage | | 1300 | 1700 | 1900 | V |
| V_{DC} | Maximum DC Blocking Voltage | | 1200 | 1600 | 1800 | V |
| $I_{F(AV)}$ | Average Forward current | Single phase, half wave, 180°C conduction, Tc= 100°C | 200 | | | A |
| $I_{F(RMS)}$ | R.M.S. Forward current | | 314 | | | |
| I_{FSM} | Non-Repetitive Surge | 1/2 cycle, 50HZ, peak value Tj=150°C | 7.50 | | | KA |
| | Forward current | 1/2 cycle, 60HZ, peak value Tj=150°C | 7.55 | | | |
| I^2t | I^2t (For Fusing) | 1/2 cycle, 50HZ, peak value Tj=150°C | 281 | | | KA ² S |
| | | 1/2 cycle, 60HZ, peak value Tj=150°C | 265 | | | KA ² S |
| T_J | Junction Temperature | | -40 to +150 | | | °C |
| T_{STG} | Storage Temperature Range | | -40 to +125 | | | °C |
| V_{ISO} | Isolation Breakdown Voltage | Ac, 50Hz(R.M.S), t=1minute | 2500 | | | V |
| Torque | Module-to-Sink | Recommended(M6) | 6.0 | | | N.m |
| Torque | Module Electrodes | Recommended(M6) | 6.0 | | | N.m |
| $R_{th(J-C)}$ | Junction-to-case Thermal Resistance | | 0.210 | | | K /W |
| $R_{th(C-H)}$ | case-to-Heatsink Thermal Resistance | | 0.08 | | | K /W |
| Weight | | | 230 | | | g |

ELECTRICAL AND THERMAL CHARACTERISTICS(Tc=25°C unless otherwise specified)

| Symbol | Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
|-----------|----------------------------------|------------------------------------|------|------|------|------|
| I_{RRM} | Max.Reverse Leakage current | $V_R = V_{RRM}, T_J = 150^\circ C$ | - | - | 12 | mA |
| V_{FM} | Forward Voltage | $I_F = 600A$ | - | - | 1.35 | V |
| V_{FO} | For power-loss calculations only | | | - | 0.75 | V |
| r_F | $T_J = 150^\circ C$ | | | - | 0.88 | mΩ |

CHARACTERISTIC CURVES

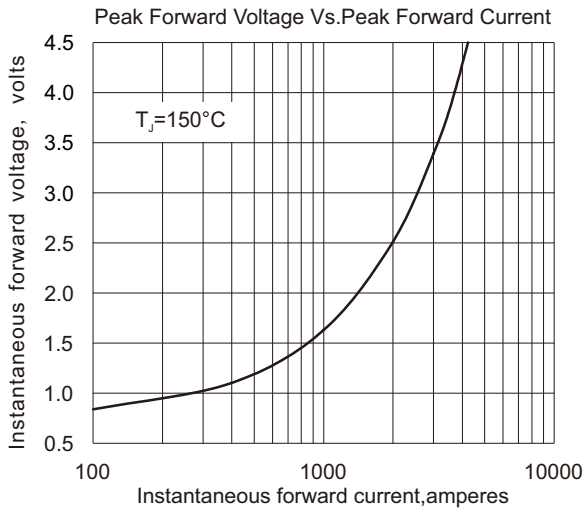


Fig.1

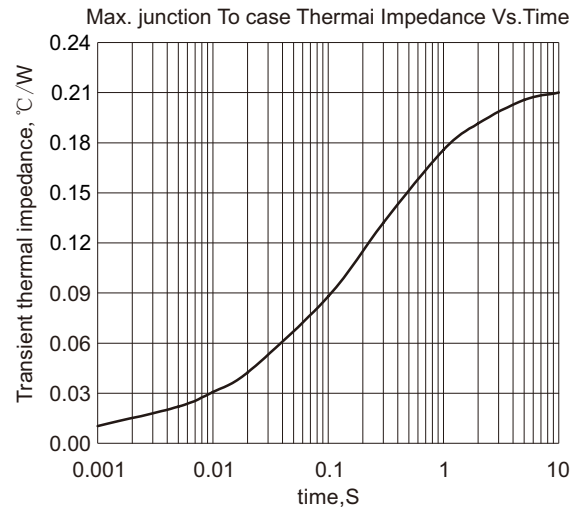


Fig.2

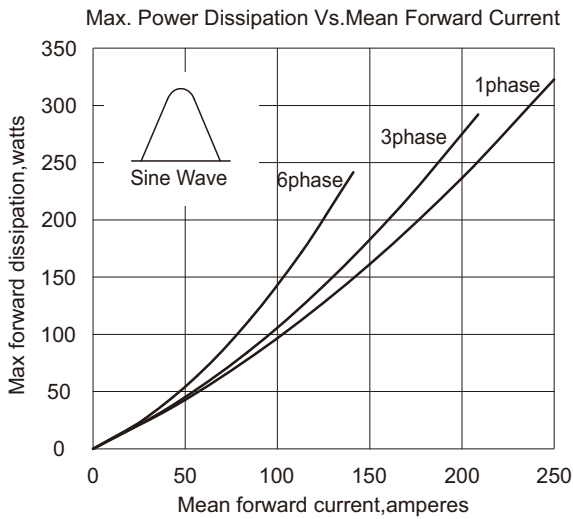


Fig.3

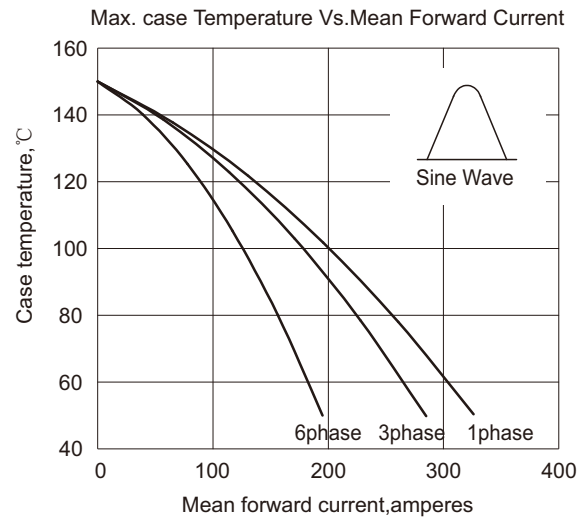


Fig.4

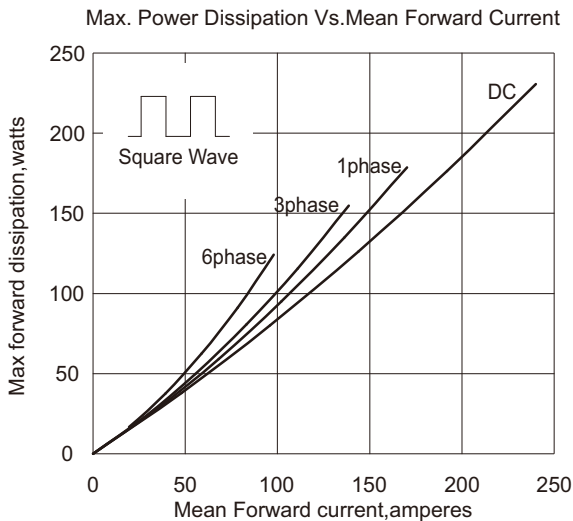


Fig.5

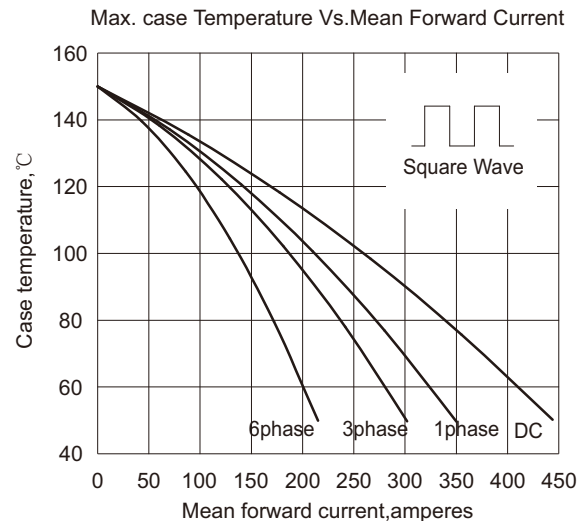


Fig.6

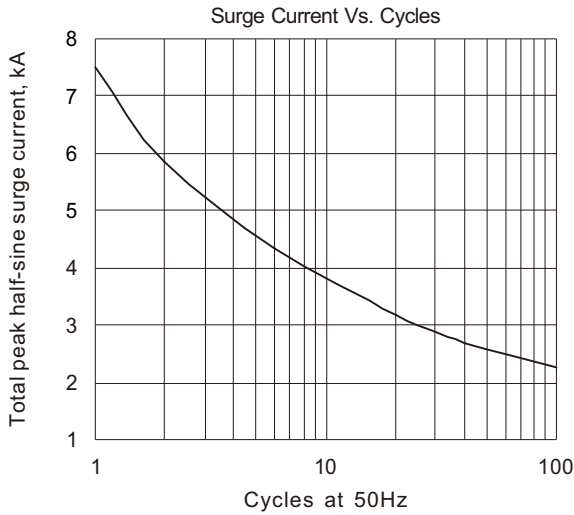


Fig.7

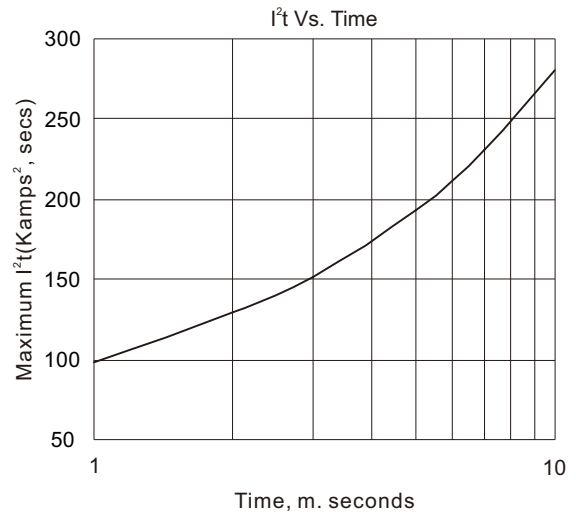


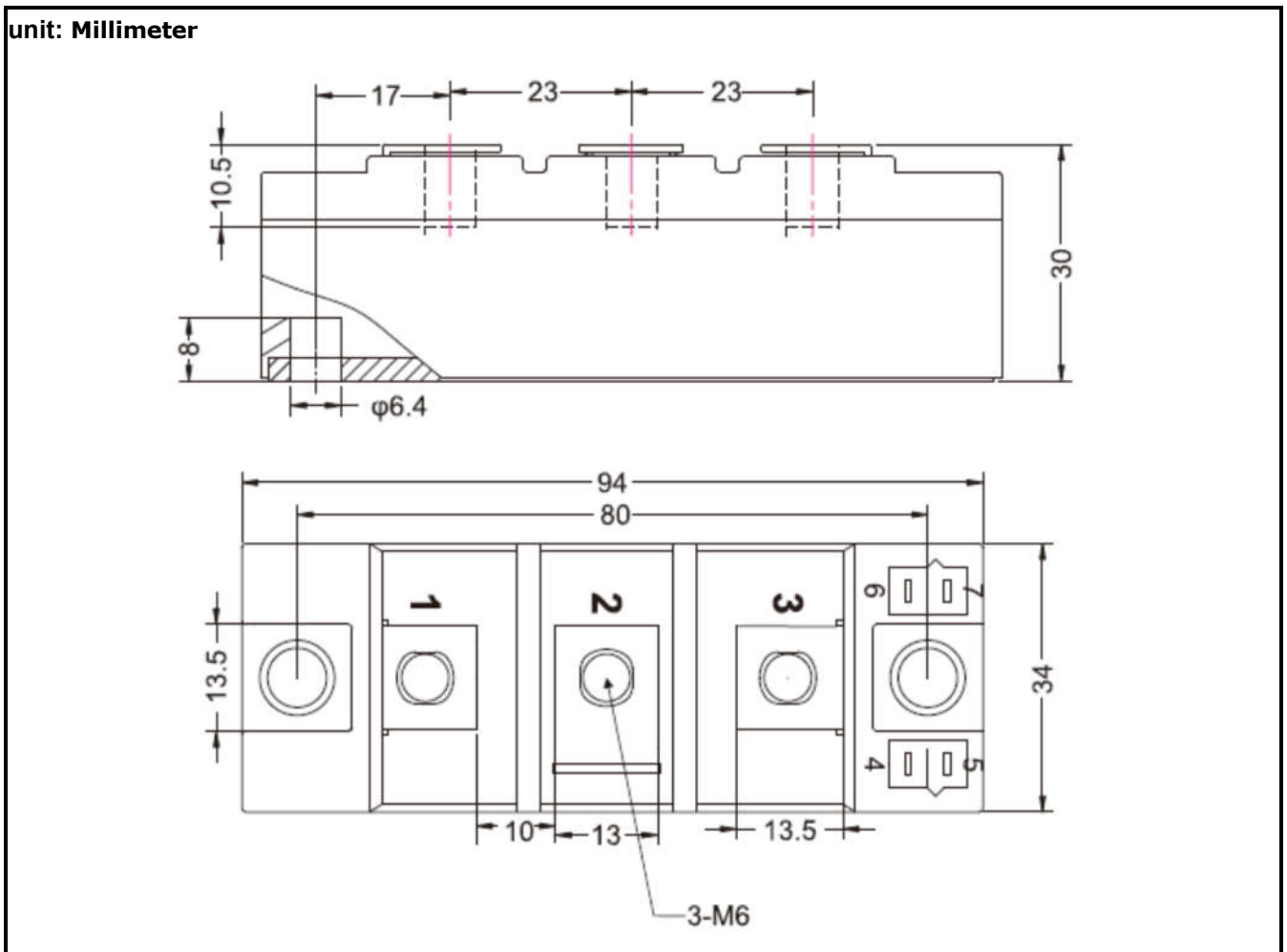
Fig.8

Ordering information

| Model name | Package | Unit Weight | Base Quantity |
|------------|---------|--------------|---------------|
| MDA200-XX | MDA | 8.11oz(230g) | 10pcs/ Box |

Package Dimensions

MDA



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