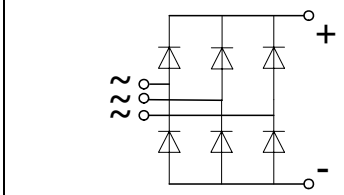
# MB300S02M5

## Three Phase Rectifier Bridge

**$V_{RRM}$** 200V
**$I_D$** 300 A

Circuit




### Applications

- Three phase rectifiers for power supplies
- Rectifiers for DC motor field supplies
- Battery charger rectifiers
- Input rectifiers for variable frequency drives

### Features

- Three phase bridge rectifier
- Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate

### Module Type

| TYPE | $V_{RRM}$ | $V_{RSM}$ |
|---|---|---|
| MB300S02M5 | 200V | 220V |

### Maximum Ratings

| Symbol | Conditions | Values | Units |
|---|---|---|---|
| $I_D$ | Three phase, full wave Tc=100℃ | 300 | A |
| $I_{FSM}$ | t=10mS Tvj =45℃ | 950 | A |
| $i^2t$ | t=10mS Tvj =45℃ | 4500 | $A^2s$ |
| Visol | a.c.50HZ;r.m.s.;1min | 3000 | V |
| Tvj | | -40 to +150 | ℃ |
| Tstg | | -40 to +125 | ℃ |
| Mt | To terminals(M6) | 5±15% | Nm |
| Ms | To heatsink(M6) | 5±15% | Nm |
| Weight | Module (Approximately) | 194 | g |

### Thermal Characteristics

| Symbol | Conditions | Values | Units |
|---|---|---|---|
| Rth(j-c) | Per diode | 0.5 | ℃/W |

### Electrical Characteristics

| Symbol | Conditions | Values | | | Units |
|---|---|---|---|---|---|
| | | Min. | Typ. | Max. | |
| $V_F$ | T=25℃ $I_F$ =100A | — | 0.9 | 1 | V |
| $I_R$ | Tvj=25℃ $V_R=V_{RRM}$<br>Tvj=125℃ $V_R=V_{RRM}$ | — | — | 1<br>30 | mA<br>mA |

## Performance Curves

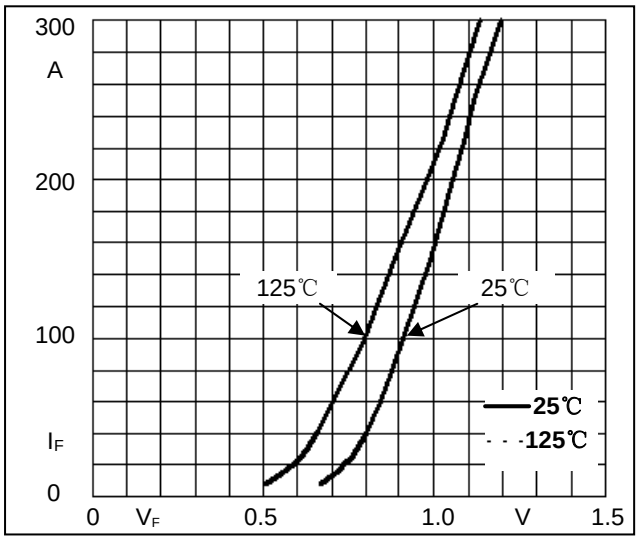



Fig1. Forward Characteristics

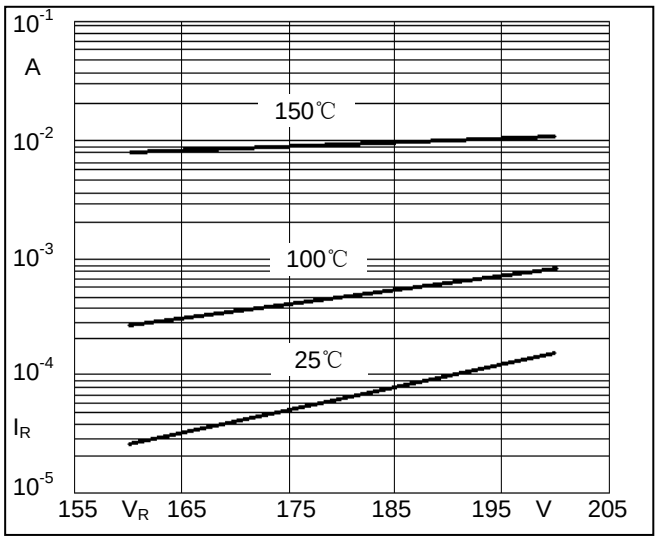
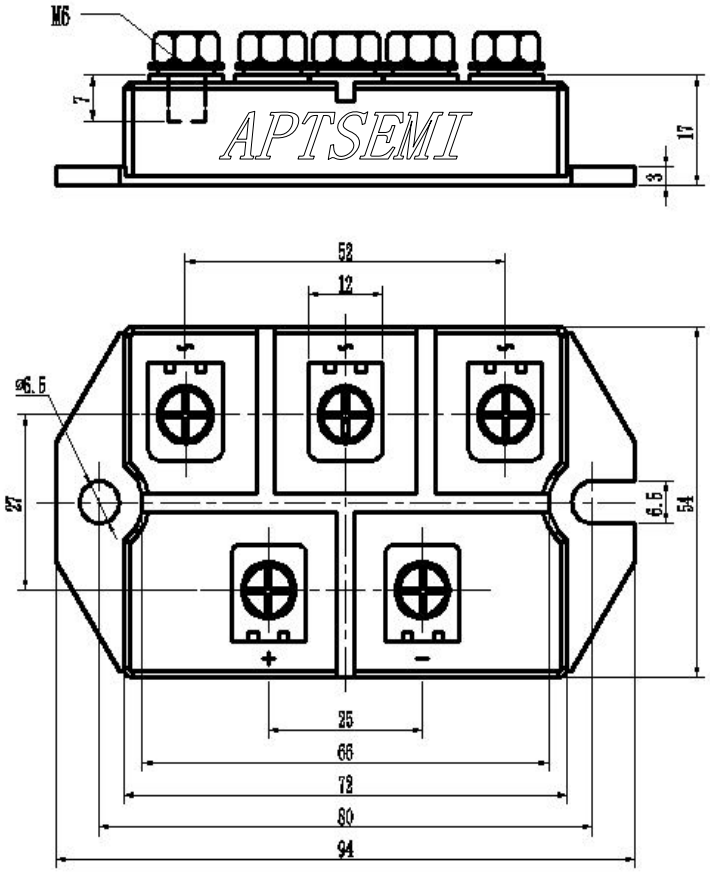



Fig2. Typical Reverse Current

## Package Outline Information

**CASE: M5**




**Dimensions in mm**