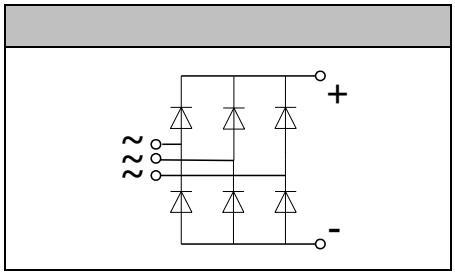
# MD100S-M2

HD L



## Glass Passivated Three Phase Rectifier Bridge

**$V_{RRM}$** 800 to 1800V
**$I_D$** 100 A




### 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
- Blocking voltage:800 to 1800V
- Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate
- Glass passivated chip
- UL recognized applied for file no. E230084

### Module Type

| TYPE | $V_{RRM}$ | $V_{RSM}$ |
|---|---|---|
| MD100S08M2 | 800V | 900V |
| MD100S12M2 | 1200V | 1300V |
| MD100S16M2 | 1600V | 1700V |
| MD100S18M2 | 1800V | 1900V |

### Maximum Ratings

| Symbol | Conditions | Values | Units |
|---|---|---|---|
| $I_D$ | Three phase, full wave Tc=100 | 100 | A |
| $I_{FSM}$ | t=10mS Tvj =45 | 1100 | A |
| $i^2t$ | t=10mS Tvj =45 | 6050 | $A^2s$ |
| $V_{isol}$ | a.c.50HZ;r.m.s.;1min | 3000 | V |
| $T_{vj}$ | | -40 to +150 | |
| $T_{stg}$ | | -40 to +125 | |
| Mt | To terminals(M5) | 3±15% | Nm |
| Ms | To heatsink(M5) | 3±15% | Nm |
| Weight | Module (Approximately) | 130 | g |

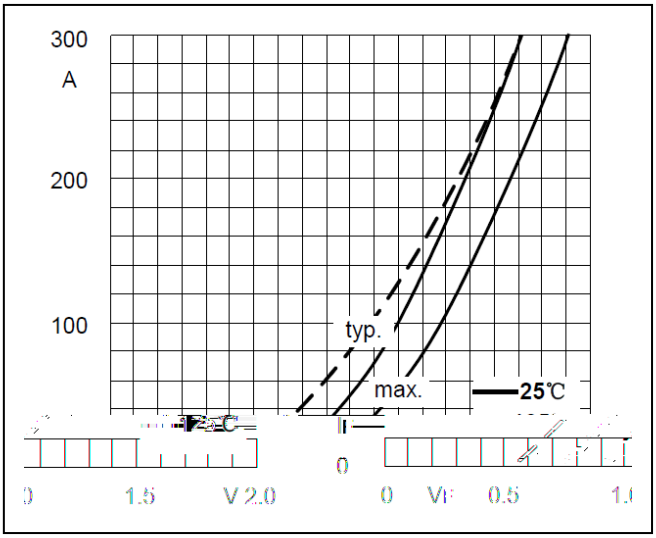
### Thermal Characteristics

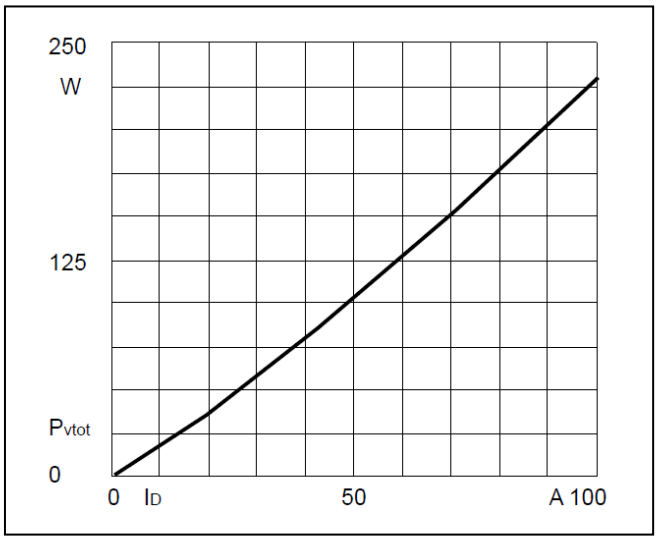
| Symbol | Conditions | Values | Units |
|---|---|---|---|
| Rth(j-c) | Per diode | 1.0 | /W |
| Rth(c-s) | Module (Approximately) | 0.07 | /W |

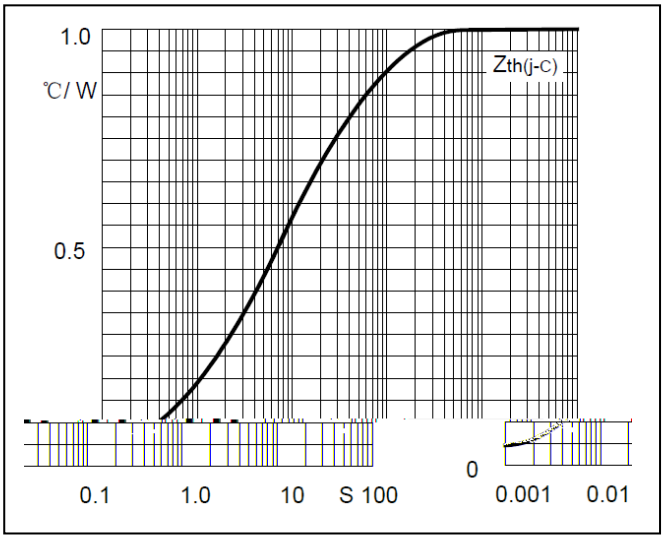
### Electrical Characteristics

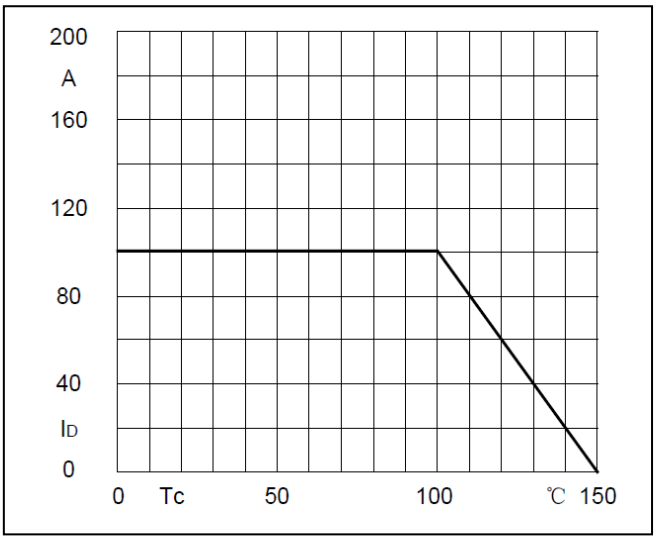
| Symbol | Conditions | Values | | | Units |
|---|---|---|---|---|---|
| | | Min. | Typ. | Max. | |
| $V_{FM}$ | T=25 $I_F$ =100A | | 1.20 | 1.38 | V |
| | T=25 $I_F$ =300A | | 1.70 | 1.90 | |
| $I_{RD}$ | $T_{vj}$=25 $V_{RD}$=$V_{RRM}$ | | | 0.1 | mA |
| | $T_{vj}$=150 $V_{RD}$=$V_{RRM}$ | | | 3 | mA |

## Performance Curves



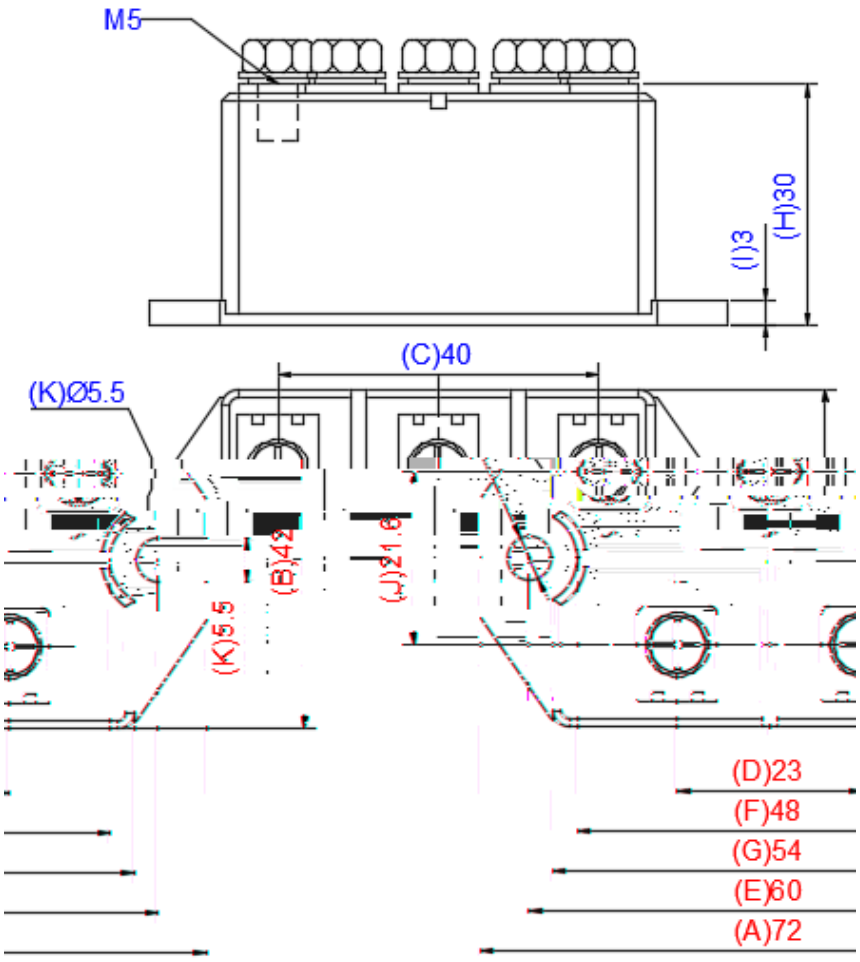



## Package Outline Information

### CASE M2




**Dimensions in mm**