

Three – Phase Bridge Rectifier

Features

- Easy connections
- Excellent power volume ratio
- Insulated type

| Voltage Ratings ($T_J = 25^{\circ}\text{C}$ unless otherwise noted) | | | | |
|--|--------------|--|--|---------------------------|
| Type number | Voltage code | VRRM, Max. repetitive peak reverse voltage (V) | VRSM, Max. non-repetitive peak reverse voltage (V) | IRRM max @ T_J max (mA) |
| 110 MDS | 80 | 800 | 900 | 10 |
| | 100 | 1000 | 1100 | |
| | 120 | 1200 | 1300 | |
| | 140 | 1400 | 1500 | |
| | 160 | 1600 | 1700 | |

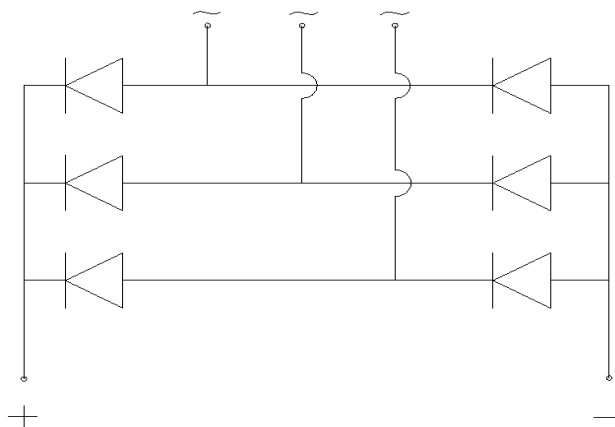


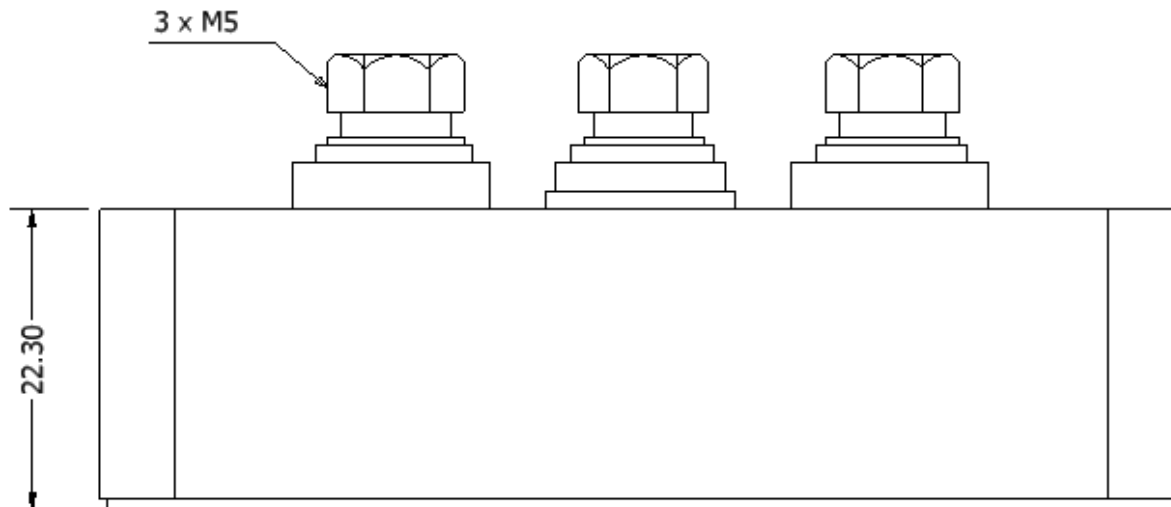
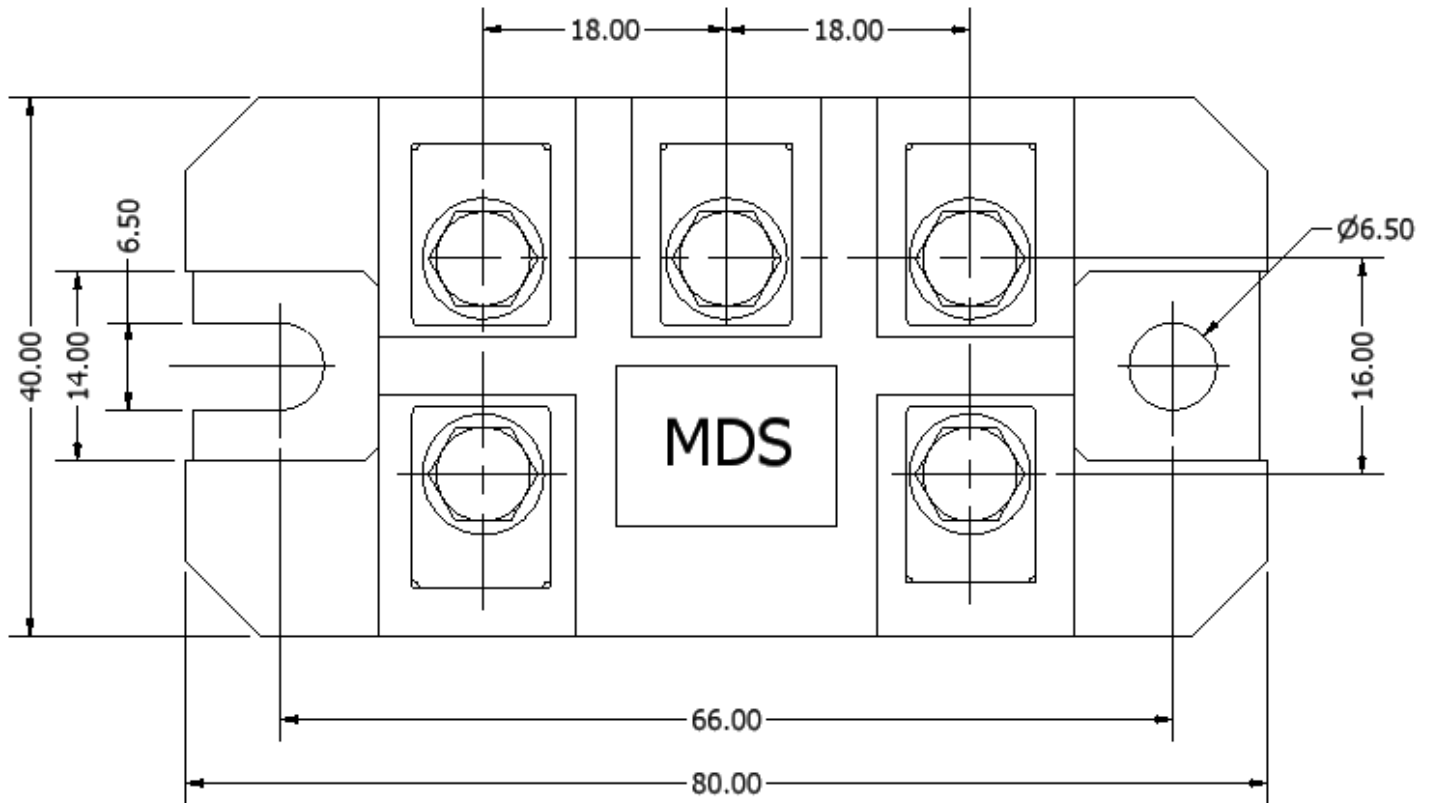
MDS

| Thermal and Mechanical Specifications ($T_A = 25^{\circ}\text{C}$ unless otherwise noted) | | | |
|--|---------------------|--|-----------------------------|
| Parameters | Symbol | Values | Units |
| Maximum operating junction temperature range | T_J | - 40 to + 150 | $^{\circ}\text{C}$ |
| Maximum storage temperature range | T_{Stg} | - 40 to + 150 | $^{\circ}\text{C}$ |
| Maximum thermal resistance, junction to case | $R_{\text{th}(JC)}$ | DC operation per module | 0.18 |
| | | DC operation per junction | 1.07 |
| | | 120 Rect conduction angle per module | 0.21 |
| | | 120 Rect conduction angle per junction | 1.25 |
| Maximum thermal resistance, case to heatsink | $R_{\text{th}(CS)}$ | 0.03 | $^{\circ}\text{C}/\text{W}$ |
| Mounting torque $\pm 10\%$ | T | to heatsink | 4 to 6 |
| | | to terminal | 3 to 4 |
| Approximate weight | | 176 | g |

| Electrical Specifications ($T_J = 25^{\circ}\text{C}$ unless otherwise noted) | | | | | |
|--|---|---------------------------|--------------|--------|-----------------------|
| Parameters | Conditions | | Symbol | Values | Units |
| Maximum DC output current | 120° Rect conduction angle, $T_C = 85^{\circ}\text{C}$ | | I_0 | 110 | A |
| Maximum peak one-cycle forward, non-repetitive surge current | t = 10ms | No voltage reappplied | I_{FSM} | 950 | A |
| | t = 8.3ms | | | | |
| | t = 8.3ms | 100% V_{RRM} reappplied | | 800 | |
| | t = 10ms | | | 840 | |
| Maximum I^2t for fusing | T = 8.3ms | No voltage reappplied | I^2t | 4500 | A^2s |
| | T = 10ms | | | | |
| | T = 8.3ms | 100% V_{RRM} reappplied | | 3200 | |
| | T = 10ms | | | 2900 | |
| Maximum J^2vt for fusing | T = 0.1 to 10ms, no voltage reappplied | | J^2vt | 45000 | A^2Vs |
| Low level value of threshold voltage | [$16.7\% * \pi * I_{F(AV)} < I < \pi * I_{F(AV)}$], @ T_J max | | $V_{F(TO)1}$ | 0.81 | V |
| High level value of threshold voltage | [$I > \pi * I_{F(AV)}$], @ T_J max | | $V_{F(TO)2}$ | 0.99 | V |
| Low level value of forward slope resistance | [$16.7\% * \pi * I_{F(AV)} < I < \pi * I_{F(AV)}$], @ T_J max | | r_1 | 4.37 | $\text{m}\Omega$ |
| High level value of forward slope resistance | [$I > \pi * I_{F(AV)}$], @ T_J max | | r_2 | 4.64 | $\text{m}\Omega$ |
| Maximum forward voltage drop | $I_{pk} = 100\text{A}$, $t_p = 400 \mu\text{s}$ single junction | | V_{FM} | 1.4 | V |
| RMS isolation voltage | f = 50Hz, t = 1ms, all terminals shorted | | V_{ISO} | 4000 | V |

Diode Configuration





ALL DIMENSIONS IN MM