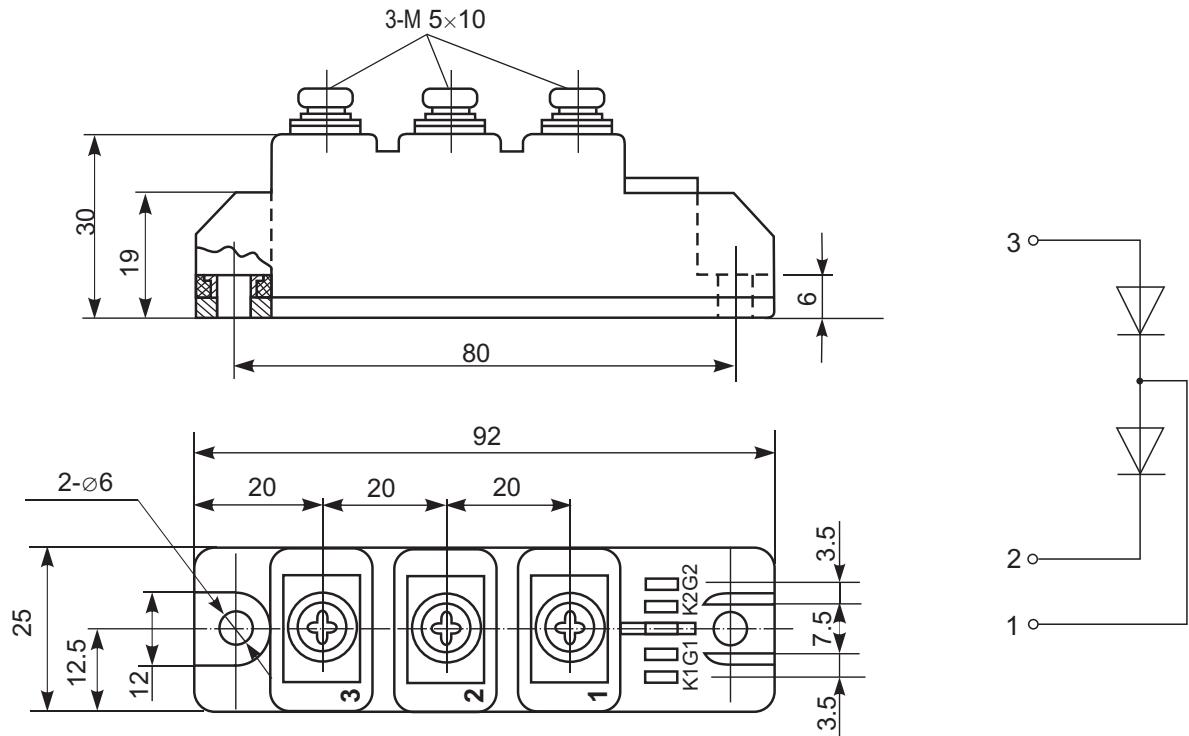


## Diode-Diode Module



| Type       | V <sub>RSM</sub> | V <sub>RRM</sub> |
|------------|------------------|------------------|
| МДД-100-08 | 900              | 800              |
| МДД-100-12 | 1300             | 1200             |
| МДД-100-14 | 1500             | 1400             |
| МДД-100-16 | 1700             | 1600             |
| МДД-100-18 | 1900             | 1800             |

| Symbol            | Parameter                            | Test Conditions   |        | Value      | Unit               |
|-------------------|--------------------------------------|---|--------|------------|--------------------|
| I <sub>FAVM</sub> | average on-state current             | T <sub>C</sub> =85°C  |        | 100        | A                  |
| I <sub>FRMS</sub> | maximum RMS on-state current         | T <sub>J</sub> =T <sub>JM</sub>                                     |        | 190        | A                  |
| I <sub>FSM</sub>  | surge-current                        | T <sub>C</sub> =45°C  |        | 2.5        | kA                 |
|                   |                                      | T <sub>J</sub> =T <sub>JM</sub>                                     |        | 2.1        |                    |
| i <sup>2</sup> t  | i <sup>2</sup> t-value               | T <sub>C</sub> =45°C  |        | 30.6       | kA <sup>2</sup> ·s |
|                   |                                      | T <sub>J</sub> =T <sub>JM</sub>                                     |        | 22.7       |                    |
| I <sub>RRM</sub>  | off-state Leakage current            | T <sub>J</sub> =T <sub>JM</sub> ; V <sub>R</sub> =V <sub>RRM</sub>  |        | 25         | mA                 |
| V <sub>RRM</sub>  | reverse repeat peak value voltage    | T <sub>J</sub> =T <sub>JM</sub> ; 180°C sine wave, 50 Hz; gate open |        | 800-1800   | V                  |
| V <sub>RSM</sub>  | non-repetitive peak reverse voltage  | T <sub>J</sub> =T <sub>JM</sub>                                     |        | 900-1900   | V                  |
| V <sub>FM</sub>   | on-state voltage                     | I <sub>TM</sub> =320A   |        | 1.60       | V                  |
| r <sub>T</sub>    | slope resistance                     | T <sub>J</sub> =T <sub>JM</sub>                                     |        | 2.4        | m                  |
| V <sub>isol</sub> | insulation test voltage              | 50 Hz, RMS;   | t=1min | 2500       | V                  |
|                   |                                      |   | t=1s   | 3000       |                    |
| V <sub>TO</sub>   | threshold voltage                    | T <sub>J</sub> =T <sub>JM</sub>                                     |        | 1.15       | V                  |
| T <sub>J</sub>    | working junction temperature         |   |        | -40...+125 | °C                 |
| T <sub>JM</sub>   | maximum working junction temperature |   |        | 125        | °C                 |
| T <sub>stg</sub>  | storage temperature                  |   |        | -40...+50  | °C                 |
| R <sub>thJC</sub> | thermal resistance; junction to case |   |        | 0.35       | K/W                |
| M <sub>1</sub>    | mounting torque                      | M5  |        | 2.5-4      | Nm                 |
| M <sub>2</sub>    | terminal connection torque           | M5  |        | 2.5-4      | Nm                 |
| W                 | weight                               |   |        | 500        | g                  |
| a                 | maximum allowable acceleration       |   |        | 50         | m/s <sup>2</sup>   |



### Features:

- Industrial standard package
- Heat transfer through aluminium nitride ceramic isolated metal baseplate
- Precise internal pressure contacts for high reliability
- 2500V RMS isolation voltage

### Typical Applications:

- DC motor control
- AC motor soft starter
- Temperature control (e.g. for ovens, chemical processes)
- Lighting control