

**DIODE-DIODE MODULE**  
**OF FAST-RECOVERY DIODES**  
**M4.3FRD, M4.3FRDA**  
**50, 100, 150, 200, 250,300 A      12 class**  
***DATASHEET IN BRIEF***

The module consisting of two fast-recovery diodes with general anode is intended for using composed of high-powered converters.

**OVERALL DRAWINGS**

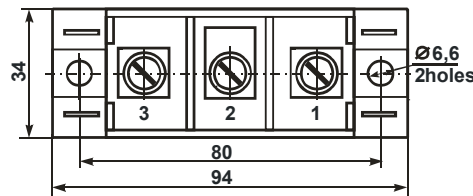
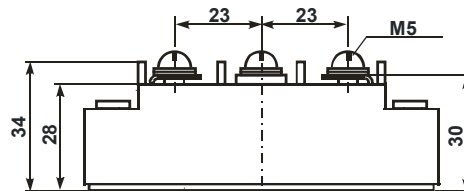


Figure 1 – Drawing of case E2

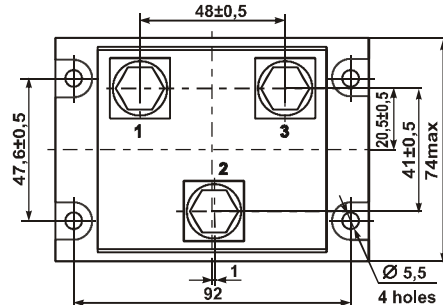
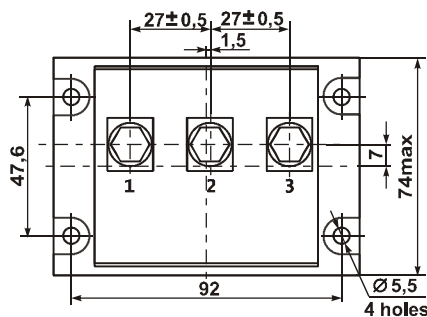
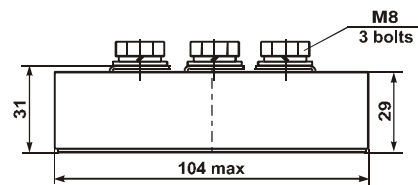
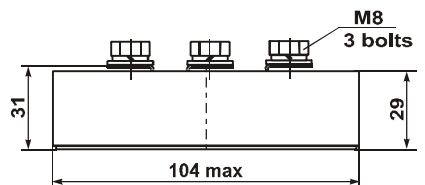


Figure 2 – Drawing of housing DM

Figure 3 – Drawing of housing DM

**TABLE OF OVERALL DRAWINGS**

| Module         |                 | Figure |
|----------------|-----------------|--------|
| M4.3FRD-50-12  | M4.3FRDA-50-12  | 1      |
| M4.3FRD-100-12 | M4.3FRDA-100-12 | 1      |
| M4.3FRD-150-12 | M4.3FRDA-150-12 | 1      |
| M4.3FRD-200-12 | M4.3FRDA-200-12 | 2      |
| M4.3FRD-250-12 | M4.3FRDA-250-12 | 2      |
| M4.3FRD-300-12 | M4.3FRDA-300-12 | 3      |

### INTERNAL CONNECTION SCHEME

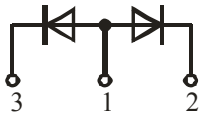


Figure 4 – Connection circuit M4.3FRD

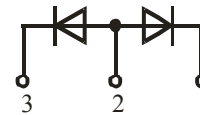


Figure 5 – Connection circuit M4.3FRDA

### BASIC CHARACTERISTICS

T = 25 °C

| Product name      | Pulse direct voltage,<br>$U_{FM}$ ,<br>V |              | Repeated pulse<br>reverse current,<br>$I_{RRM}$ ,<br>mA |                  | Electric DC isolation<br>strength between radiator<br>and power outputs,<br>$U_{ISOL}$ ,<br>V |                 | Reverse recovery<br>time,<br>$t_{rr}$ ,<br>ns | Thermal resis-<br>tance junction-<br>cooler<br>$R_{th(j-c)}$ ,<br>°C/W |
|-------------------|--|--------------|---|------------------|---|-----------------|---|--|
|                   | max                                      | $I_o$ ,<br>A | max   | $U_{OUT}$ ,<br>V | min   | $t$ ,<br>minute |   |  |
| M4.3FRD(A)-50-12  | 2.1                                      | 50           | 1.0   | 1200             | 4000  | 1               | 200   | 0.55   |
| M4.3FRD(A)-100-12 |  | 100          |   |                  |   |                 |   | 0.30   |
| M4.3FRD(A)-150-12 |  | 150          |   |                  |   |                 |   | 0.22   |
| M4.3FRD(A)-200-12 |  | 200          |   |                  |   |                 |   | 0.19   |
| M4.3FRD(A)-250-12 |  | 250          |   |                  |   |                 |   | 0.15   |
| M4.3FRD(A)-300-12 |  |              |   |                  |   |                 |   |  |

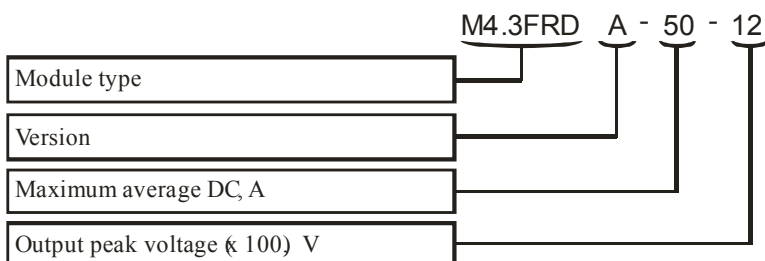
### MAXIMUM PERMISSIBLE OPERATING MODES

| Product name      | Non-repeated<br>pulse reverse<br>voltage<br>$U_{RSM}$ ,<br>V | Repeated pulse<br>reverse diode<br>voltage<br>$U_{RRM}$ ,<br>V | Average diode<br>DC<br>$I_{F(AV)}$ ,<br>A | Surge diode DC<br>$I_{F(SM)}$ ,<br>A, |             | Critical rate of<br>on-state<br>current rise,<br>( $di_F / dt$ ) cr,<br>A/ $\mu$ s | Junction temperature<br>$T_{VJ}^*$ ,<br>°C |      |
|-------------------|--|--|---|---------------------------------------|-------------|--|--|------|
|                   |  |  |   |                                       | $t$ ,<br>ms |  | min  | max  |
| M4.3FRD(A)-50-12  | 1200   | 1200   | 50  | 500                                   | 10          | 150  | - 40                                       | +125 |
| M4.3FRD(A)-100-12 |  |  | 100                                       | 1000                                  |             |  |  |      |
| M4.3FRD(A)-150-12 |  |  | 150                                       | 1500                                  |             |  |  |      |
| M4.3FRD(A)-200-12 |  |  | 200                                       | 2000                                  |             |  |  |      |
| M4.3FRD(A)-250-12 |  |  | 250                                       | 2500                                  |             |  |  |      |
| M4.3FRD(A)-300-12 |  |  | 300                                       | 4000                                  |             |  |  |      |

\* Modules are designed for operating in the equipment using coolers that support junction temperature in the prescribed ranges

Precious metals are not contained.

### MODULE SYMBOL



Note – Ordering the module you should specify the housing type (E2, DM)