

**DIODE-DIODE MODULE**  
**M4.2Sch, M4.2SchA**  
**40, 80, 120, 160, 200, 240, 320A 1,25 class**  
**DATASHEET IN BRIEF**

The module consisting of two Schottky diodes with general cathode is intended for using composed of high-powered converters.

**OVERALL DRAWINGS**

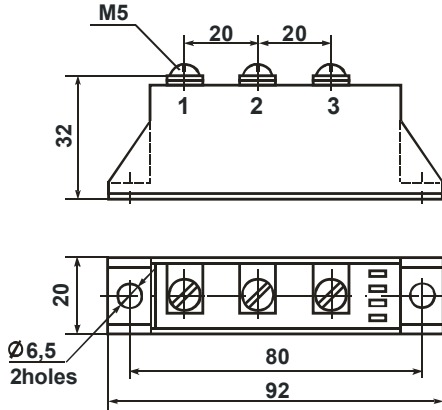


Figure 1 – Drawing of housing E1

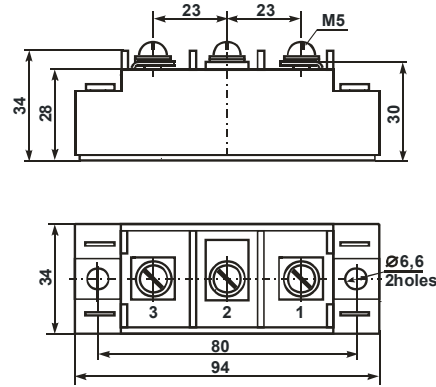


Figure 2 – Drawing of housing E2

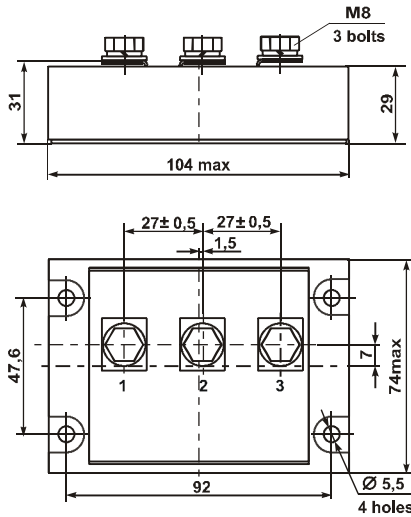


Figure 3 – Drawing of housing DM

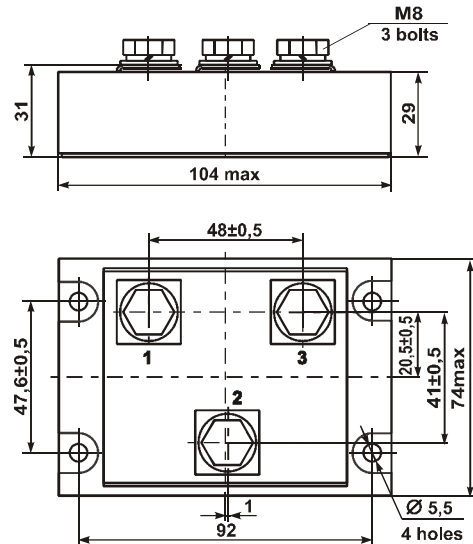


Figure 4 – Drawing of housing DM

**TABLE OF OVERALL DRAWINGS**

| Module           |                   | Figure |
|------------------|-------------------|--------|
| M4.2Sch-40-1,25  | M4.2SchA-40-1,25  | 1 or 2 |
| M4.2Sch-80-1,25  | M4.2SchA-80-1,25  | 1 or 2 |
| M4.2Sch-120-1,25 | M4.2SchA-120-1,25 | 2      |
| M4.2Sch-160-1,25 | M4.2SchA-160-1,25 | 2      |
| M4.2Sch-200-1,25 | M4.2SchA-200-1,25 | 3      |
| M4.2Sch-240-1,25 | M4.2SchA-240-1,25 | 3      |
| M4.2Sch-320-1,25 | M4.2SchA-320-1,25 | 4      |

### INTERNAL CONNECTION SCHEME

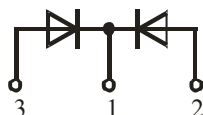


Figure 5 – Connection circuit M4.1Sch

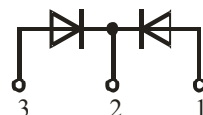


Figure 6 – Connection circuit M4.1SchA

### BASIC CHARACTERISTICS

T = 25 °C

| Product name          | Pulse direct voltage, $U_{FM}$ , V |               | Repeated pulse reverse current, $I_{RRM}$ , mA |               | Electric DC isolation strength between radiator and power outputs, $U_{ISOL}$ , V |        | Reverse recovery time, $t_{rr}$ , ns |                 | Thermal resistance junction-cooler $R_{th(j-c)}$ , °C/W |      |
|-----------------------|------------------------------------|---------------|--|---------------|---|--------|--------------------------------------|-----------------|---|------|
|                       | max                                | $I_{OUT}$ , A | max  | $U_{OUT}$ , V | min   | t, min | max                                  | $I_{F(AV)}$ , A |   |      |
| M4.2Sch(A)-40-1,25    | 1.65                               | 126           | 1.0  | 125           | 4000  | 1      | 100                                  | 40              | 0.80  |      |
| M4.2 Sch (A)-80-1,25  |                                    | 251           |  |               |   |        |                                      | 80              |   | 0.50 |
| M4.2 Sch (A)-120-1,25 |                                    | 377           |  |               |   |        |                                      | 120             |   |      |
| M4.2 Sch (A)-160-1,25 |                                    | 503           |  |               |   |        |                                      | 160             |   |      |
| M4.2 Sch (A)-200-1,25 |                                    | 628           |  |               |   |        |                                      | 200             |   |      |
| M4.2 Sch (A)-240-1,25 |                                    | 754           |  |               |   |        |                                      | 240             |   |      |
| M4.2 Sch(A)-320-1,25  |                                    | 1005          |  |               |   |        |                                      | 320             |   |      |

### MAXIMUM PERMISSIBLE OPERATING MODES

| Product name          | Non-repeated pulse reverse voltage $U_{RSM}$ , V | Repeated pulse reverse diode voltage $U_{RRM}$ , V | Average diode DC $I_{F(AV)}$ , A | Root-mean-square diode DC $I_{FRMS}$ , A | Pulse diode DC $I_{FM}$ , A | Surge diode DC $I_{F(SM)}$ , A |       | Critical rate of open state current rise, $(di_F / dt)_{cr}$ , A/μs | Junction temperature $T_{VJ}^*$ , °C |      |
|-----------------------|--|--|----------------------------------|--|-----------------------------|--------------------------------|-------|---|--------------------------------------|------|
|                       |  |  |                                  |  |                             | Q                              | t, ms |   | min                                  | min  |
| M4.2Sch(A)-40-1,25    | 125  | 125  | 40                               | 63                                       | 80                          | 2                              | 10    | 160   | -40                                  | +125 |
| M4.2 Sch (A)-80-1,25  |  |  | 80                               | 125                                      | 160                         |                                |       |   |                                      |      |
| M4.2 Sch (A)-120-1,25 |  |  | 120                              | 188                                      | 240                         |                                |       |   |                                      |      |
| M4.2 Sch (A)-160-1,25 |  |  | 160                              | 251                                      | 320                         |                                |       |   |                                      |      |
| M4.2 Sch (A)-200-1,25 |  |  | 200                              | 314                                      | 400                         |                                |       |   |                                      |      |
| M4.2 Sch (A)-240-1,25 |  |  | 240                              | 377                                      | 480                         |                                |       |   |                                      |      |
| M4.2 Sch(A)-320-1,25  |  |  | 320                              | 502                                      | 640                         |                                |       |   |                                      |      |

\* 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

M4.2SchA - 80 - 1,25

|                               |  |
|-------------------------------|--|
| Module type                   |  |
| Version                       |  |
| Maximum average DC, A         |  |
| Output peak voltage (x100), V |  |

Note – Ordering the module you should specify the housing type (E1, E2, DM)