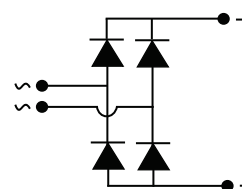


## Single Phase Bridge Rectifier, 80 Amps

### Features

- Easy connections
- Excellent power volume ratio
- Insulated type



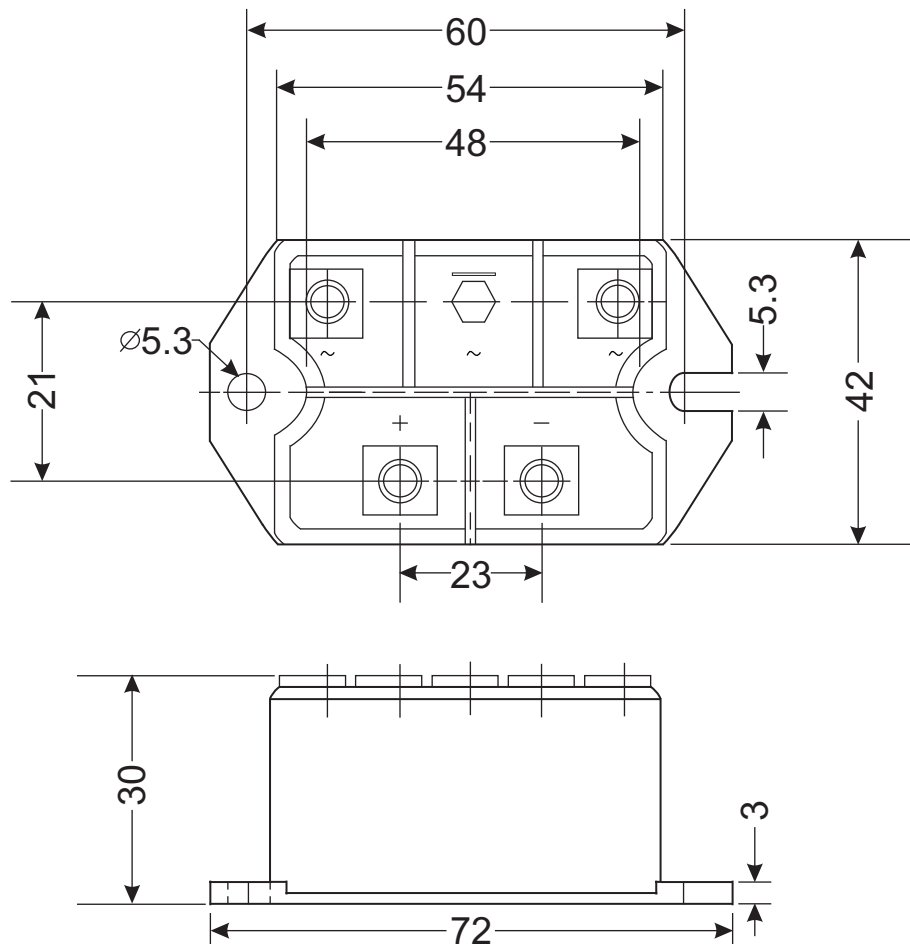
MDQ



| Voltage Ratings ( $T_J = 25^\circ\text{C}$ unless otherwise noted) |              |   |   |                                   |
|--|--------------|---|---|-----------------------------------|
| Type number  | Voltage code | $V_{RRM}$ , Max. repetitive peak reverse voltage<br>(V) | $V_{RSM}$ , Max. non-repetitive peak reverse voltage<br>(V) | $I_{RRM}$ max @ $T_J$ max<br>(mA) |
| MDQ80  | 80           | 800   | 900   | 8.0                               |
|  | 100          | 1000  | 1100  |                                   |
|  | 120          | 1200  | 1300  |                                   |
|  | 140          | 1400  | 1500  |                                   |
|  | 160          | 1600  | 1700  |                                   |

| Electrical Specifications ( $T_J = 25^\circ\text{C}$ unless otherwise noted) |   |           |        |                      |
|--|---|-----------|--------|----------------------|
| Parameters   | Conditions                                    | Symbol    | Values | Units                |
| Maximum DC output current  | $T_C = 85^\circ\text{C}$                      | $I_{DC}$  | 80     | A                    |
| Forward surge current (non-repetitive), one cycle                            | $f = 50$ Hz                                   | $I_{FSM}$ | 950    | A                    |
| Fusing current   |   | $I^2t$    | 4500   | $\text{A}^2\text{s}$ |
| Maximum forward voltage drop   | $I_{FM} = 80\text{A}, T_J = 25^\circ\text{C}$ | $V_{FM}$  | 1.2    | V                    |
| RMS isolation voltage  |   | $V_{ISO}$ | 3000   | V                    |

| Thermal and Mechanical Specifications ( $T_J = 25^\circ\text{C}$ 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   | $R_{th(J-C)}$ | 0.20          | $^\circ\text{C}/\text{W}$ |
| Mounting torque  | to heatsink   | $3 \pm 15\%$  | Nm                        |
|  | to terminal   | $3 \pm 15\%$  |                           |
| Approximate weight   | W             | 165           | g                         |

**Package Outline**
*(All dimensions in mm)*

**Ordering Table**

| MDQ | 80 | / | 120 |
|-----|----|---|-----|
| 1   | 2  |   | 3   |

1 – Single-Phase Bridge

 2 – Current =  $I_D$ 

 3 – Voltage Code x 10 =  $V_{RRM}$  (See Voltage Ratings Table)