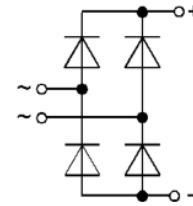


## Single Phase Bridge Rectifier, 50 Amps

### Features

- Easy connections
- Excellent power volume ratio
- Insulated type



MDQ



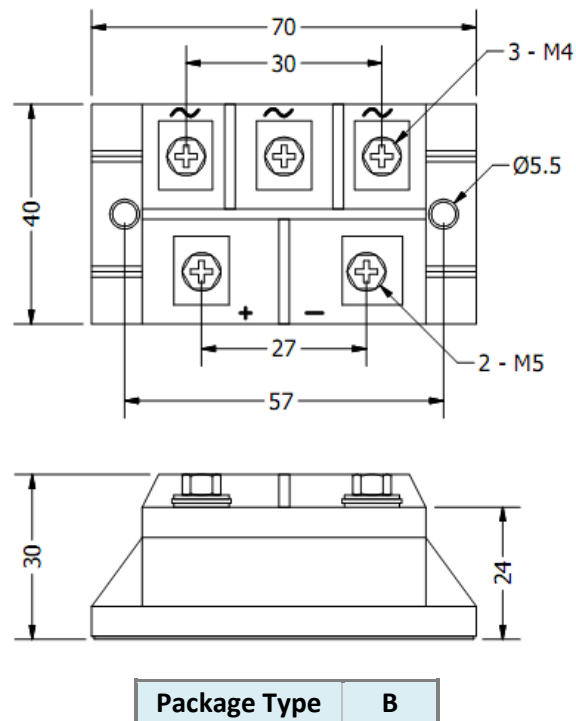
Voltage Ratings ( $T_J = 25^\circ\text{C}$ unless otherwise noted)				
Type number	Voltage code	$V_{RRM}$ , Max. repetitive peak reverse voltage (V)	$V_{RSM}$ , Max. non-repetitive peak reverse voltage (V)	$I_{RRM}$ max @ $T_J$ max (mA)
MDQ50	80	800	900	8.0
	100	1000	1100	
	120	1200	1300	
	140	1400	1500	
	160	1600	1700	

Electrical Specifications ( $T_J = 25^\circ\text{C}$ unless otherwise noted)				
Parameters	Conditions	Symbol	Values	Units
Maximum DC output current	$T_C = 95^\circ\text{C}$	$I_{DC}$	50	A
Forward surge current (non-repetitive), one cycle	$f = 50$ Hz	$I_{FSM}$	600	A
Fusing current		$I^2t$	1800	$\text{A}^2\text{s}$
Maximum forward voltage drop	$I_{FM} = 50\text{A}$ , $T_J = 25^\circ\text{C}$	$V_{FM}$	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		$R_{th(J-C)}$	0.31	$^\circ\text{C}/\text{W}$
Mounting torque	to heatsink	F	$3 \pm 15\%$	Nm
	to terminal		$3 \pm 15\%$	
Approximate weight		W	160	g

**Package Outline**

*(All dimensions in mm)*



**Ordering Table**

MDQ	50	/	120
1	2		4

- 1 – Single-Phase Bridge
- 2 – Current = I<sub>D</sub>
- 3 – Voltage Code x 10 = V<sub>RRM</sub> (See Voltage Ratings Table)