

Three – Phase Bridge Rectifier

Features

- Easy connections
- Excellent power volume ratio
- Insulated type

Voltage Ratings ($T_J = 25^{\circ}\text{C}$ unless otherwise noted)

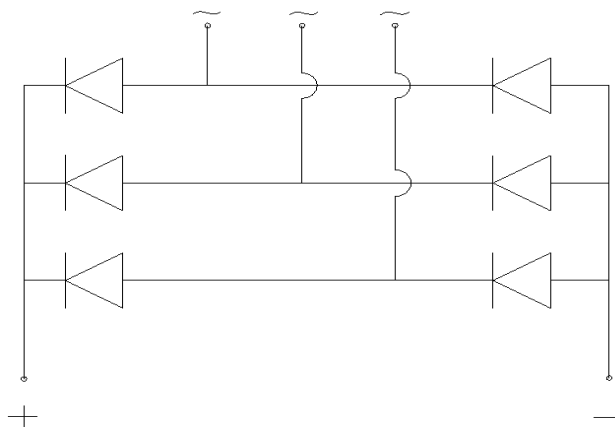
Type number	Voltage code	VRRM, Max. repetitive peak reverse voltage (V)	VRSM, Max. non-repetitive peak reverse voltage (V)	IRRM max @ T_J max (mA)
130 MDS	80	800	900	10
	100	1000	1100	
	120	1200	1300	
	140	1400	1500	
	160	1600	1700	

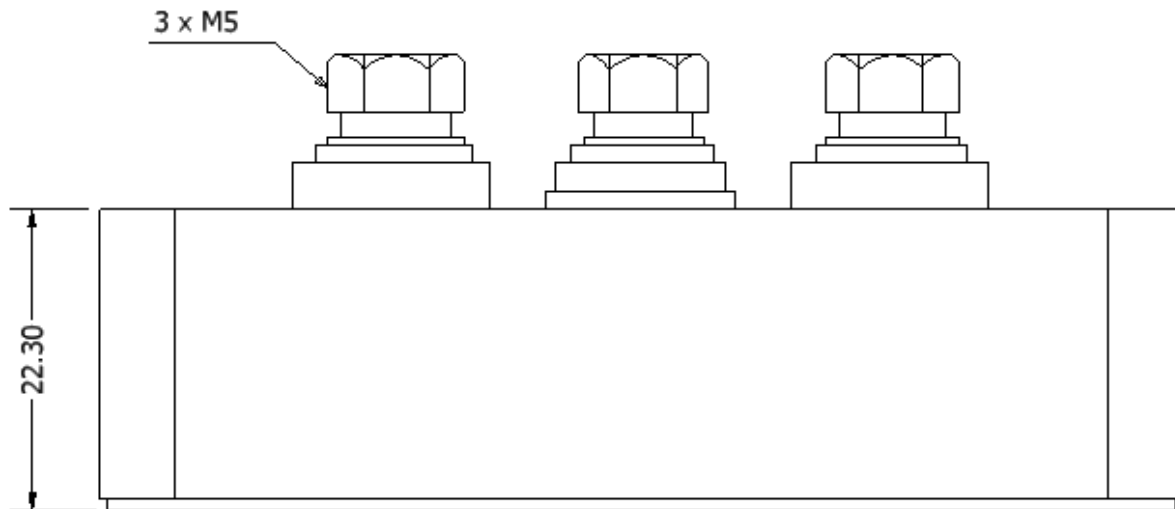
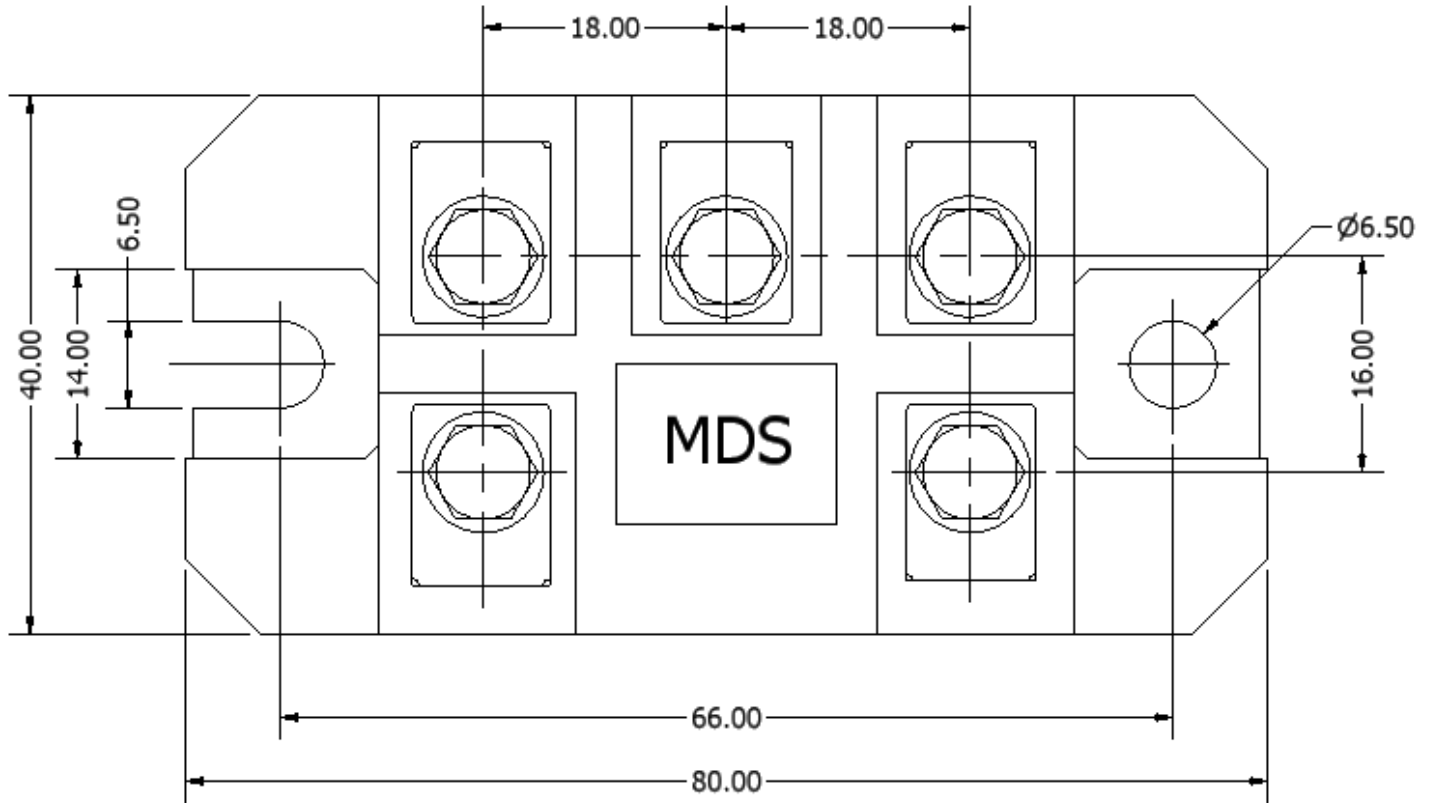

MDS
Thermal and Mechanical Specifications ($T_A = 25^{\circ}\text{C}$ unless otherwise noted)

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	$R_{\text{th}(JC)}$	DC operation per module	0.16
		DC operation per junction	0.93
		120 Rect conduction angle per module	0.18
		120 Rect conduction angle per junction	1.08
Maximum thermal resistance, case to heatsink	$R_{\text{th}(CS)}$	0.03	$^{\circ}\text{C}/\text{W}$
Mounting torque $\pm 10\%$	T	to heatsink	4 to 6
		to terminal	3 to 4
Approximate weight		176	g

Electrical Specifications ($T_J = 25^{\circ}\text{C}$ unless otherwise noted)					
Parameters	Conditions		Symbol	Values	Units
Maximum DC output current	120° Rect conduction angle, $T_C = 85^{\circ}\text{C}$		I_0	130	A
Maximum peak one-cycle forward, non-repetitive surge current	t = 10ms	No voltage reappplied	I_{FSM}	1130	A
	t = 8.3ms			100% V_{RRM} reappplied	
	t = 8.3ms	$T_J = T_J \text{ max.}$			
	t = 10ms			1000	
Maximum I^2t for fusing	T = 8.3ms	No voltage reappplied	I^2t	6400	A^2s
	T = 10ms			100% V_{RRM} reappplied	
	T = 8.3ms	$T_J = T_J \text{ max.}$			
	T = 10ms			4100	
Maximum J^2vt for fusing	T = 0.1 to 10ms, no voltage reappplied		J^2vt	64000	A^2Vs
Low level value of threshold voltage	$[16.7\% * \pi * I_{F(AV)} < I < \pi * I_{F(AV)}], @ T_J \text{ max}$		$V_{F(TO)1}$	0.78	V
High level value of threshold voltage	$[I > \pi * I_{F(AV)}], @ T_J \text{ max}$		$V_{F(TO)2}$	0.99	V
Low level value of forward slope resistance	$[16.7\% * \pi * I_{F(AV)} < I < \pi * I_{F(AV)}], @ T_J \text{ max}$		r_1	4.59	$\text{m}\Omega$
High level value of forward slope resistance	$[I > \pi * I_{F(AV)}], @ T_J \text{ max}$		r_2	4.17	$\text{m}\Omega$
Maximum forward voltage drop	$I_{pk} = 100\text{A}, t_p = 400 \mu\text{s}$ single junction		V_{FM}	1.63	V
RMS isolation voltage	f = 50Hz, t = 1ms, all terminals shorted		V_{ISO}	4000	V

Diode Configuration





ALL DIMENSIONS IN MM