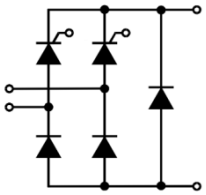
Single Phase Half Controlled Bridge Rectifier, 55A

Features

- Easy connections, screw type terminals
- Good surge current capability
- Low forward voltage drop
- Easy mounting





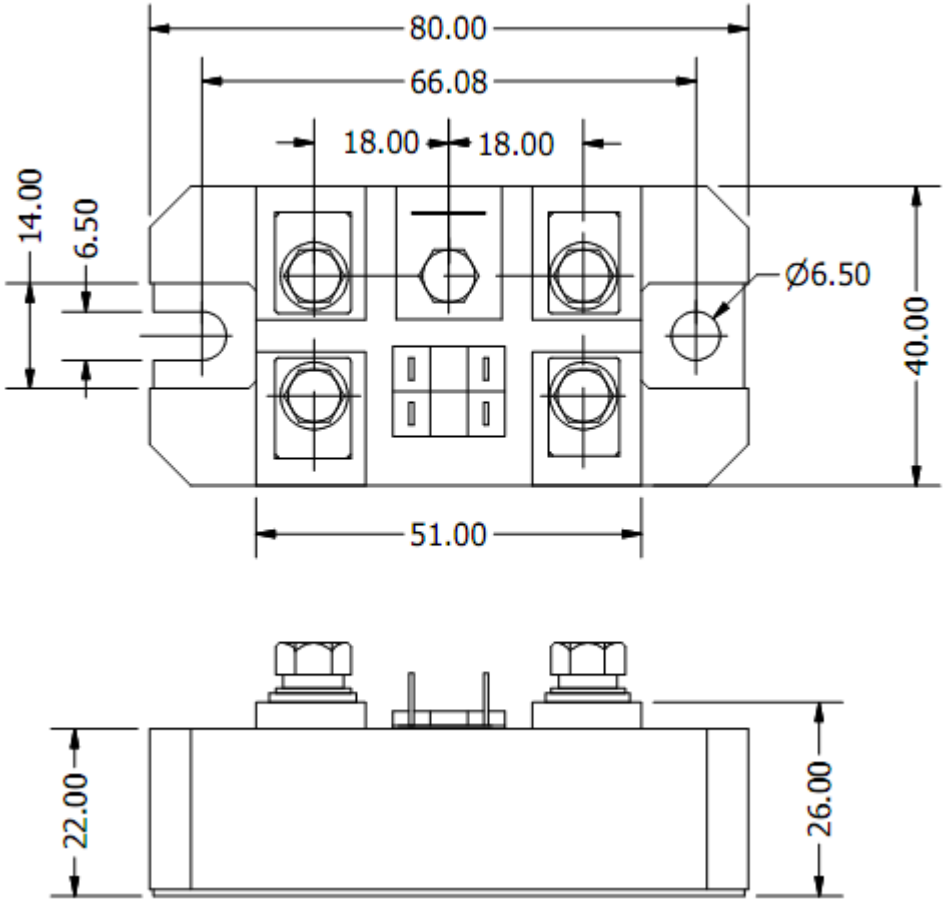
Voltage Ratings (T_J = 25°C unless otherwise noted)				
Type number	**Voltage code**	**V_{RRM}, Max. repetitive peak reverse voltage (V)**	**V_{RSM}, Max. non-repetitive peak reverse voltage (V)**	**I_{RRM} max @ T_{VJM} (mA)**
NHQ55A	80	800	900	5.0
	100	1000	1100	
	120	1200	1300	
	140	1400	1500	
	160	1600	1700	

Electrical Specifications (T_J = 25°C unless otherwise noted)				
Parameters	**Conditions**	**Symbol**	**Values**	**Units**
Maximum on-state average current	T_C = 85°C	I_{dAVM}	55	A
Forward surge current (non-repetitive), one cycle	f = 50Hz, T_{VJ} = T_{VJM}, V_R = 0	I_{FSM}, I_{TSM}	600	A
Maximum forward voltage drop	I_T = 55A, T_{VJ} = 25 °C	V_{TM}	1.40	V
Current required for fusing	f = 50Hz, T_{VJ} = T_{VJM}, V_R = 0	I^2t	1800	A^2s
Maximum rate of rise of on-state current	T_{VJ} = T_{VJM}, f = 50Hz, I_T = I_{TAVM}	di/dt	500	A/µs
Critical rate of rise of off-state voltage	T_{VJ} = T_{VJM}, V_{DR} = 2/3 V_{DRM}	dv/dt	1000	V/µs
Gate voltage to trigger	V_D = 6V, T_{VJ} = 25 °C	V_{GT}	1.0	V
Gate current to trigger	V_D = 6V, T_{VJ} = 25 °C	I_{GT}	100	mA
Holding current	T_{VJ} = 25 °C, V_D = 6V	I_H	150	mA
Latching current	T_{VJ} = 25 °C	I_L	200	mA
RMS isolation voltage	f = 50Hz, t = 1s	V_{ISO}	3000	V

Thermal and Mechanical Specifications (T_J = 25°C unless otherwise noted)				
Parameters		**Symbol**	**Values**	**Units**
Operating junction temperature range		T_{VJ}	- 40 to + 125	°C
Maximum junction temperature		T_{VJM}	125	°C
Maximum storage temperature range		T_{STG}	- 40 to + 125	°C
Maximum thermal resistance, junction to case		$R_{th(J-C)}$	0.20	°C/W
Mounting torque ±10%	to heatsink	F	3.5	Nm
	to terminal		3.5	
Approximate weight		W	170	g

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Package Outline



ALL DIMENSIONS IN MM

Ordering Table

NHQ	*55*	*A*	*160*
1	2	3	4

1 – Single-phase half- controlled bridge
2 – Current rating = I_{dAVM}
3 – Package type
4 – Voltage Code x 10 = V_{RRM} (See Voltage Ratings Table)

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