

## MRH95.16-M01

### Thyristor/Diode Modules



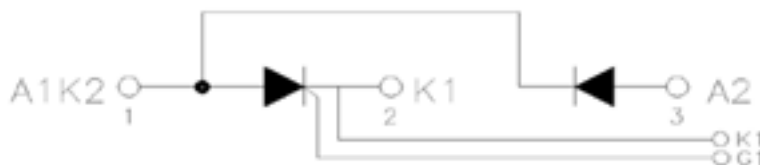
**Output Current**                    **95 A**  
**V<sub>RRM</sub>/V<sub>DRM</sub>**                    **1600 V**

#### Features

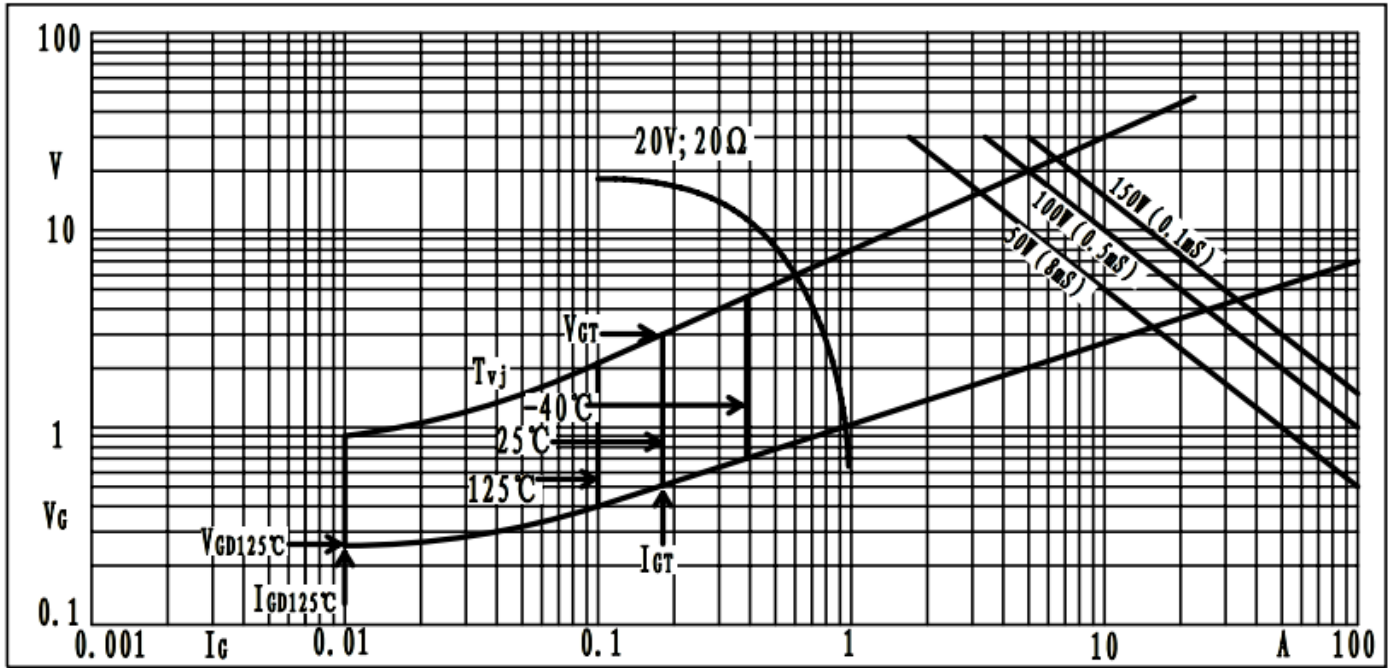
International standard package  
 Simple mounting

#### Applications

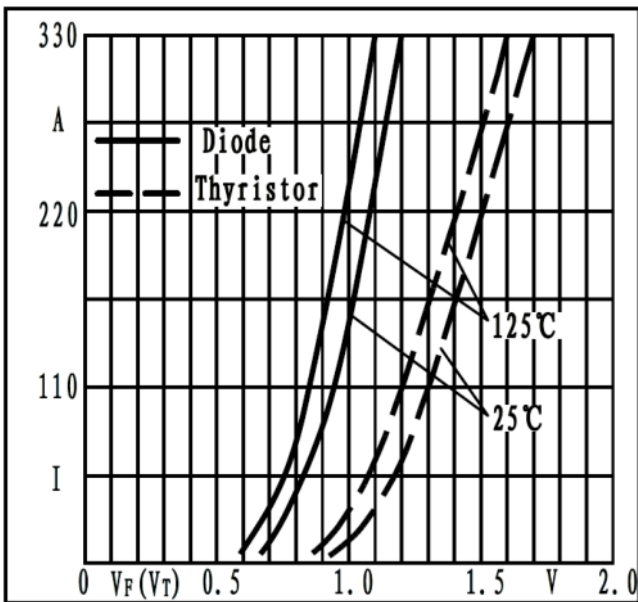
Power converters  
 Lighting control  
 DC motor control and drives



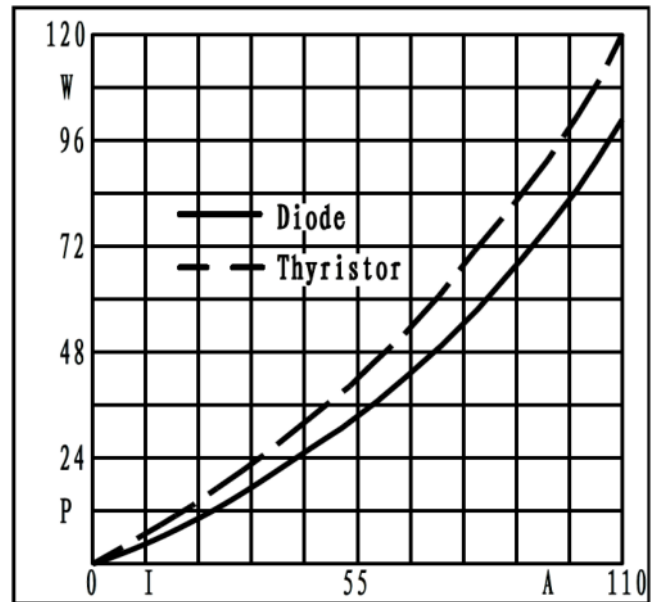
Symbol	Characteristic	Test Conditions	Value			Unit
			Min	Type	Max	
I <sub>T(AV)</sub>	Mean on-state current	180° half sine wave 50Hz T <sub>C</sub> =85°C			95	A
I <sub>DRRM</sub>	Repetitive peak current	at V <sub>DRM</sub> T <sub>J</sub> =125°C			30	mA
I <sub>RRM</sub>		at V <sub>RRM</sub> T <sub>J</sub> =125°C				
I <sub>TSM</sub>	Surge on-state current	T <sub>J</sub> =45°C t=10ms sine			2200	A
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination	T <sub>J</sub> =45°C V <sub>R</sub> =0,6V <sub>RRM</sub>			26000	A <sup>2</sup> s
V <sub>TO</sub>	Threshold voltage	T <sub>J</sub> =125°C			0,85	V
r <sub>T</sub>	On-state slop resistance	T <sub>J</sub> =125°C			1,5	mΩ
V <sub>TM</sub>	Peak on-state voltage	T=25°C I <sub>T</sub> =330A			1,70	V
dv/dt	Critical rate of rise of off-state voltage	T <sub>J</sub> =125°C, 2/3V <sub>DRM</sub> , Linear voltage rise			1000	V/μs
di/dt	Critical rate of rise of off-state current	T <sub>J</sub> =125°C, 2/3V <sub>DRM</sub> , I <sub>GM</sub> =1500mA Tr<0,5μs, tp>6μs			150	A/μs
I <sub>GT</sub>	Gate trigger current	T=25°C V <sub>D</sub> =6V			150	mA
V <sub>GT</sub>	Gate trigger voltage	T=25°C V <sub>D</sub> =6V			3	V
I <sub>H</sub>	Holding current	T=25°C V <sub>D</sub> =6V		150	400	mA
V <sub>GD</sub>	Non-trigger gate voltage	T <sub>J</sub> =125°C, 2/3V <sub>DRM</sub> ,			0,25	V
R <sub>th(j-c)</sub>	Thermal resistance Junction to case				0,17	°C/W
R <sub>th(c-h)</sub>	Thermal resistance case to heatsink				0,05	°C/W
V <sub>iso</sub>	Isolation voltage	ac 50Hz RMS t=1min I <sub>iso</sub> =1mA(max)	2500			V
F <sub>m</sub>	Terminal connection torque	M5		5		Nm
	Mounting torque	M6		5		Nm
T <sub>stg</sub>	Stored temperature		-40		125	°C
W <sub>t</sub>	Weight			120		g



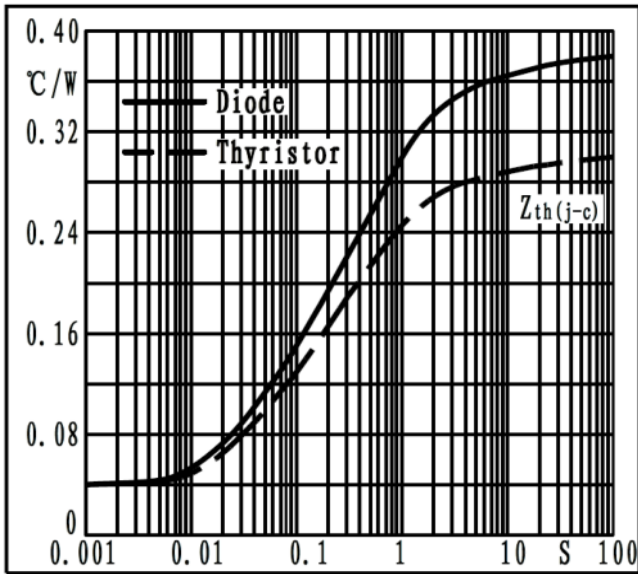
**Fig1. Gate trigger characteristics**



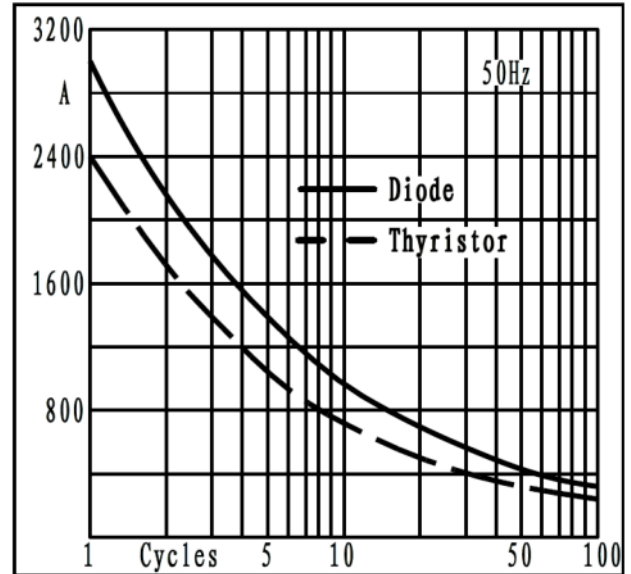
**Fig2. Forward characteristics**



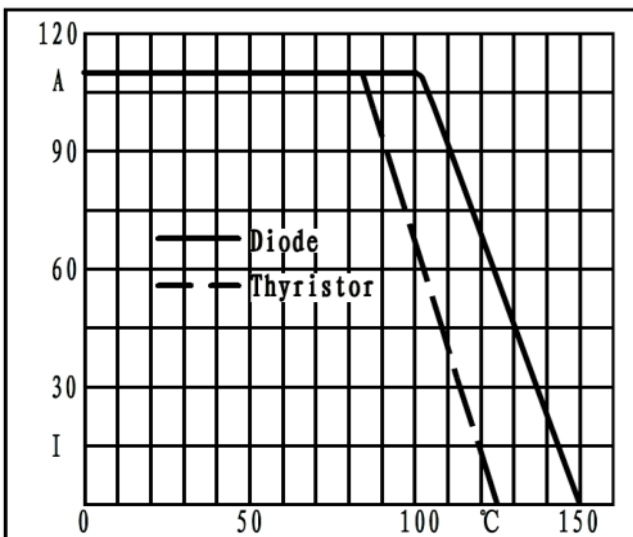
**Fig3. Power dissipation**



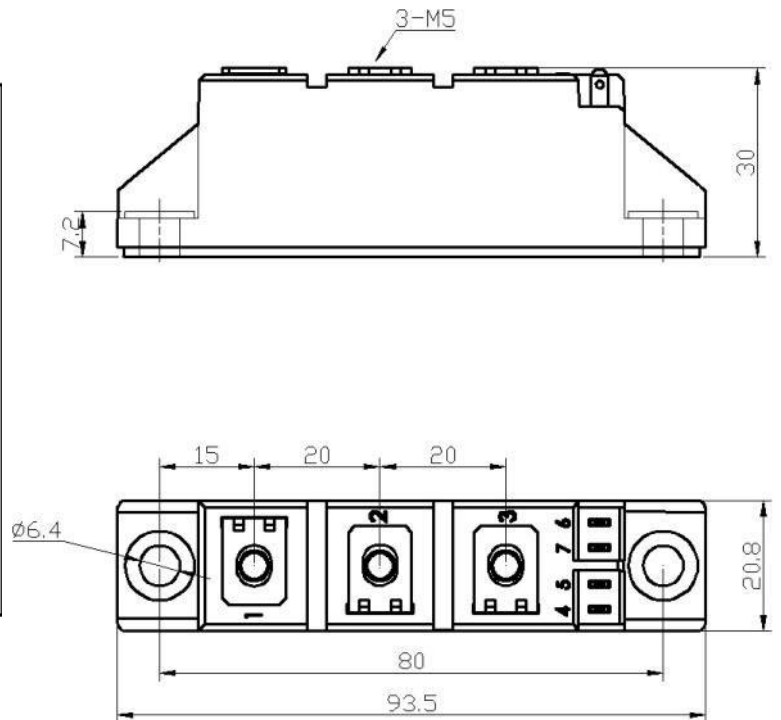
**Fig4. Transient thermal impedance**



**Fig5. Max non-repetitive forward surge current**



**Fig6. Forward current derating curve**



(dimensions in mm)

**Fig.1 MRT95.16-SS5-FIX6-XP-P80-TP  
Code:990000950000**