

## Features:

- Isolated mounting base 2500V~
- Simple design, Module and SCR rectifier bridge. Small volume, light weight

## Typical Applications:

- Supplies for DC power equipment
- Field supply for DC motors
- Inverter welder

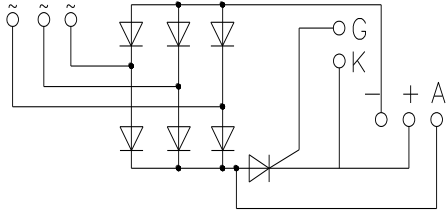
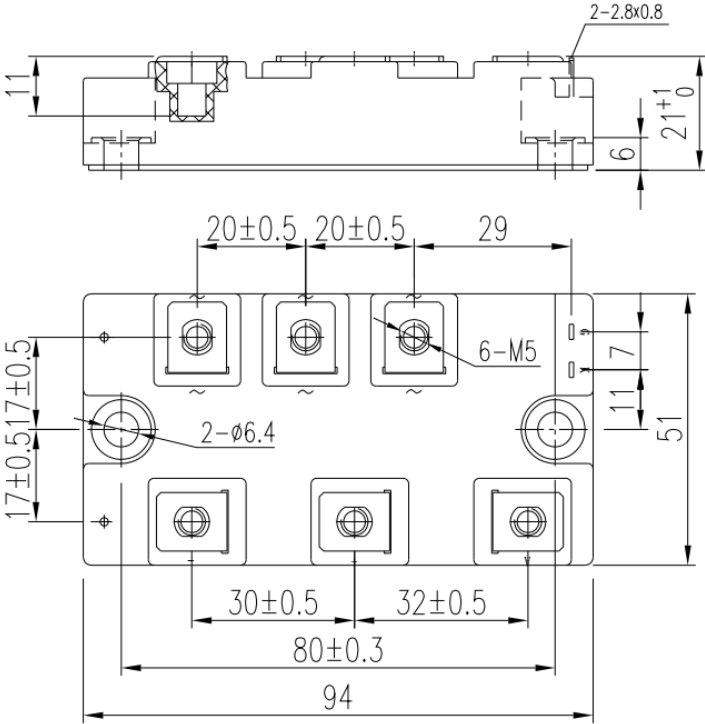
V <sub>DRM</sub> /V <sub>RRM</sub>	品名
600V	MG100TH60S
800V	MG100TH80S
1000V	MG100TH100S
1200V	MG100TH120S
1400V	MG100TH140S
1600V	MG100TH160S
1800V	MG100TH180S

## Diode

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T <sub>j</sub> (°C)	VALUE			UNIT
				Min.	Typ.	Max.	
I <sub>D</sub>	DC output current	Three-phase full wave rectifying circuit, T <sub>C</sub> =100°C	125			100	A
V <sub>RRM</sub>	Repetitive peak reverse voltage	tp=10ms	125	600		1800	V
I <sub>RRM</sub>	Repetitive peak current	at V <sub>RRM</sub>	125			8	mA
I <sub>FSM</sub>	Surge forward current	10ms half sine wave V <sub>R</sub> =0	125			0.6	kA
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination					1.8	10 <sup>3</sup> A <sup>2</sup> s
V <sub>FO</sub>	Threshold voltage		125			0.85	V
r <sub>F</sub>	Forward slope resistance					2.30	mΩ
V <sub>FM</sub>	Peak forward voltage	I <sub>FM</sub> =100A	25			1.30	V
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	D.C. Single side cooled, per chip				0.20	°C/W
R <sub>th(c-h)</sub>	Thermal resistance case to heatsink	D.C. Single side cooled, per chip				0.07	°C/W
V <sub>iso</sub>	Isolation voltage	50Hz, R.M.S, t=1min, I <sub>iso</sub> : 1mA(max)		3000			V
F <sub>m</sub>	Terminal connection torque(M5)			2.4		3.0	N·m
	Mounting torque(M6)			3.5		5.0	N·m
T <sub>vj</sub>	Junction temperature			-40		125	°C
T <sub>stg</sub>	Stored temperature			-40		125	°C
W <sub>t</sub>	Weight				220		g
Outline	M32						

## Thyristor

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T <sub>j</sub> (°C)	VALUE			UNIT
				Min.	Typ.	Max.	
I <sub>T(AV)</sub>	Mean on-state current	180° half sine wave 50Hz Single side cooled, T <sub>c</sub> =100°C	125			100	A
V <sub>DRM</sub> V <sub>RRM</sub>	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms	125	600		1800	V
I <sub>DRM</sub> I <sub>RRM</sub>	Repetitive peak current	at V <sub>DRM</sub> at V <sub>RRM</sub>	125			20	mA
I <sub>TSM</sub>	Surge on-state current	10ms half sine wave	125			0.6	kA
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination	V <sub>R</sub> =60%V <sub>RRM</sub>				1.8	10 <sup>3</sup> A <sup>2</sup> s
V <sub>TO</sub>	Threshold voltage		125			0.85	V
r <sub>T</sub>	On-state slope resistance					2.30	mΩ
I <sub>GT</sub>	Gate trigger current			V <sub>A</sub> =12V, I <sub>A</sub> =1A	25	30	
V <sub>GT</sub>	Gate trigger voltage	0.6				2.5	V
I <sub>H</sub>	Holding current	10				250	mA
I <sub>L</sub>	Latching current					1000	mA
V <sub>GD</sub>	Non-trigger gate voltage	V <sub>DM</sub> =67%V <sub>DRM</sub>	125			0.30	V
V <sub>TM</sub>	Peak on-state voltage	I <sub>TM</sub> =300A	25			1.65	V
dv/dt	Critical rate of rise of off-state voltage	V <sub>DM</sub> =67%V <sub>DRM</sub>	125			500	V/μs
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	D.C. Single side cooled, per chip				0.36	°C /W
R <sub>th(c-h)</sub>	Thermal resistance case to heatsink	D.C. Single side cooled, per chip				0.13	°C /W
V <sub>iso</sub>	Isolation voltage	50Hz, R.M.S, t=1min, I <sub>iso</sub> :1mA(MAX)		3000			V
F <sub>m</sub>	Terminal connection torque(M5)			2.5		4	N·m
	Mounting torque(M6)			4.5		6	N·m
T <sub>vj</sub>	Junction temperature			-40		125	°C
T <sub>stg</sub>	Stored temperature			-40		125	°C
W <sub>t</sub>	Weight				220		g
Outline	M32						



**MG100TH\*\*S**

Unmarked dimensional tolerance: ±0.5mm