

### Features :

- Isolated mounting base 3000V~
- Solder joint technology with increased power cycling capability
- Space and weight saving

### Typical Applications

- Various rectifiers
- DC supply for PWM inverter

V <sub>RSM</sub>	V <sub>RSM</sub>	品名
900V	800V	MD55D80S
1100V	1000V	MD55D100S
1300V	1200V	MD55D120S
1500V	1400V	MD55D140S
1700V	1600V	MD55D160S
1900V	1800V	MD55D180S

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T <sub>j</sub> (°C)	VALUE			UNIT
				Min	Type	Max	
I <sub>F(AV)</sub>	Mean forward current	180° half sine wave 50Hz Single side cooled, T <sub>C</sub> =100°C	150			55	A
I <sub>F(RMS)</sub>	RMS forward current		150			86	A
I <sub>RRM</sub>	Repetitive peak current	at V <sub>RRM</sub>	150			8	mA
I <sub>FSM</sub>	Surge forward current	10ms half sine wave V <sub>R</sub> =0.6V <sub>RRM</sub>	150			1.8	kA
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination					16.2	10 <sup>3</sup> A <sup>2</sup> s
V <sub>FO</sub>	Threshold voltage		150			0.80	V
r <sub>F</sub>	Forward slope resistance					3.74	mΩ
V <sub>FM</sub>	Peak forward voltage	I <sub>FM</sub> =170A	25			1.40	V
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	Single side cooled per chip				0.70	°C/W
R <sub>th(c-h)</sub>	Thermal resistance case to heatsink	Single side cooled per chip				0.20	°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		4.0	N·m
	Mounting torque(M6)			4.5		6.0	N·m
T <sub>stg</sub>	Stored temperature			-40		125	°C
W <sub>t</sub>	Weight				100		g
Outline	M16						

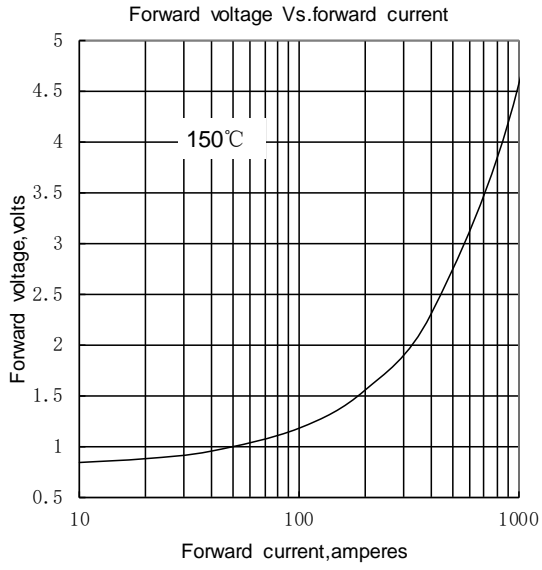


Fig.1

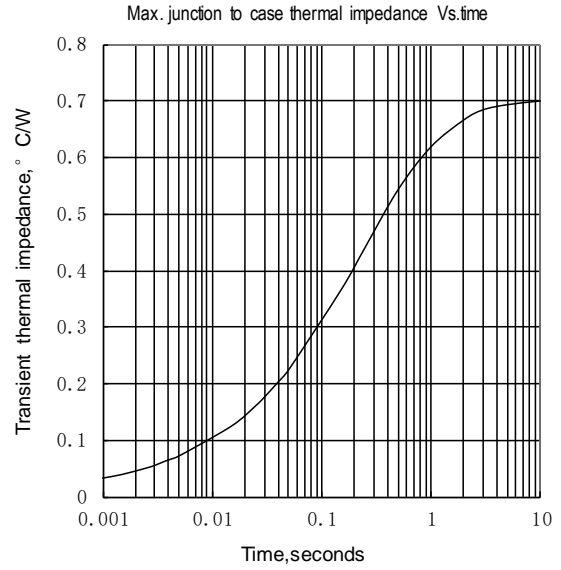


Fig.2

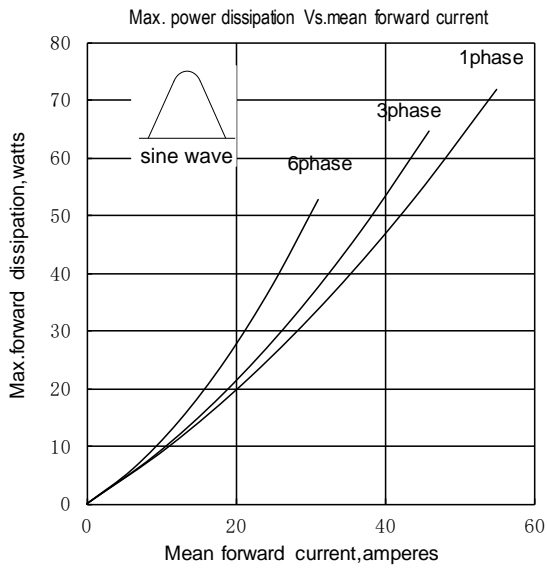


Fig.3

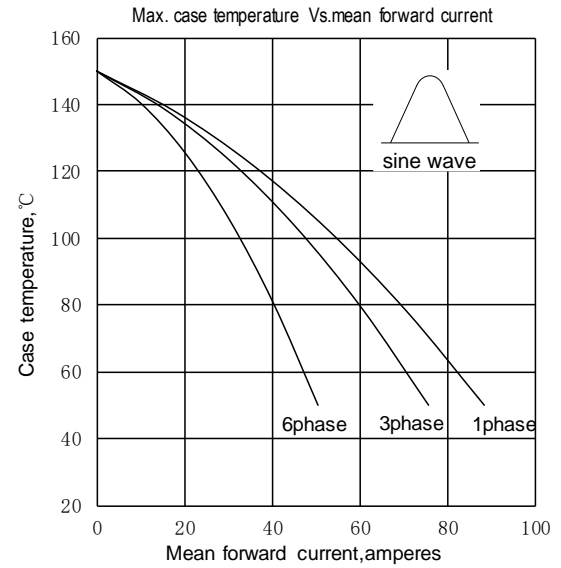


Fig.4

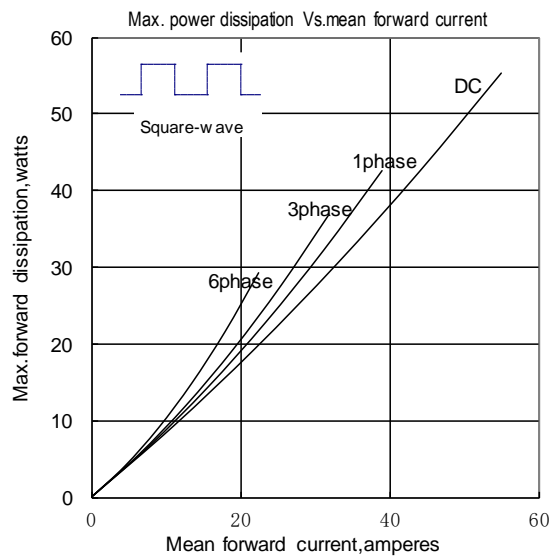


Fig.5

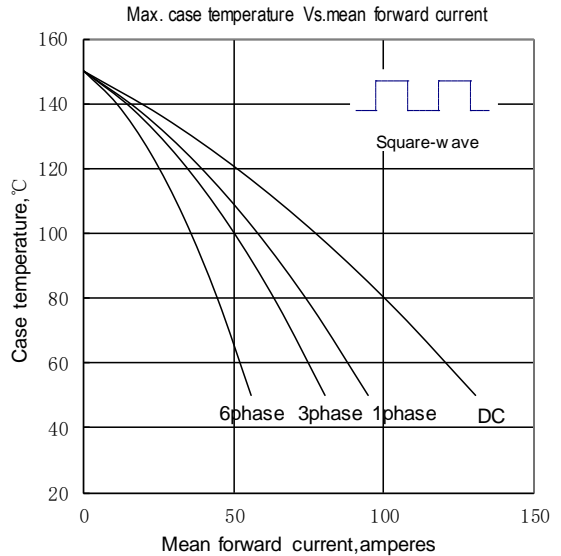


Fig.6

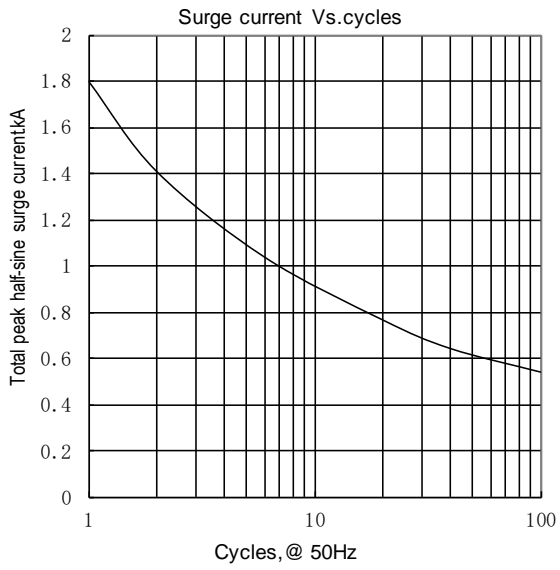


Fig.7

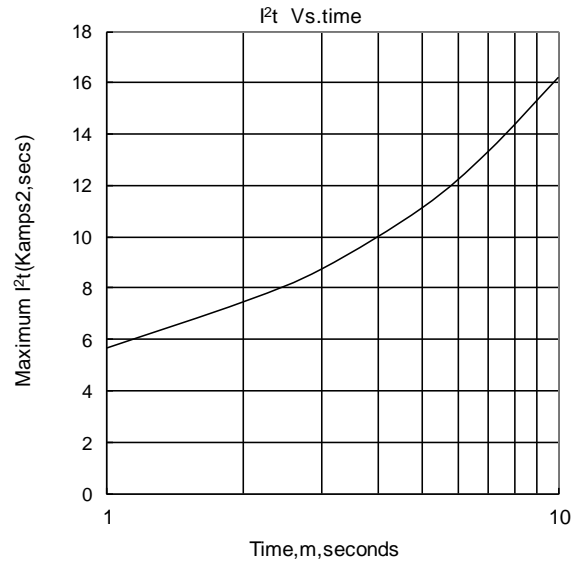
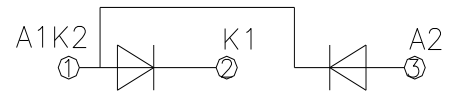
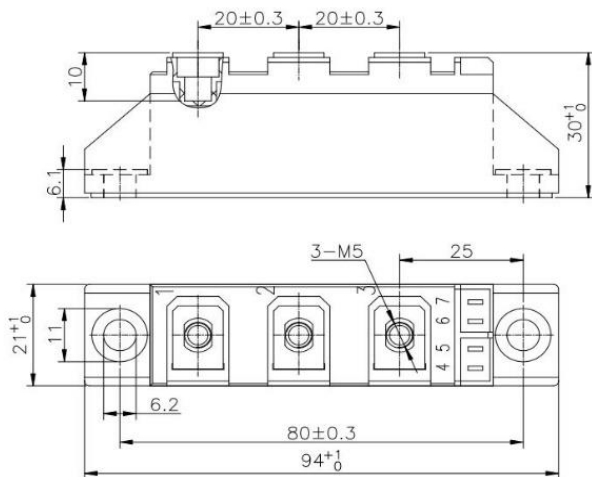


Fig.8



MD55D\*\*S

Unmarked dimensional tolerance : ±0.5mm