

**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>RRM</sub>	品名
700V	600V	MD90D60S
900V	800V	MD90D80S
1100V	1000V	MD90D100S
1300V	1200V	MD90D120S
1500V	1400V	MD90D140S
1700V	1600V	MD90D160S
1900V	1800V	MD90D180S

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T <sub>i</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			90	A
I <sub>F(RMS)</sub>	RMS forward current		150			141	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			2.0	kA
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination					20.0	A <sup>2</sup> s*10 <sup>3</sup>
V <sub>FO</sub>	Threshold voltage		150			0.80	V
r <sub>F</sub>	Forward slope resistance					1.70	mΩ
V <sub>FM</sub>	Peak forward voltage	I <sub>FM</sub> =270A	25			1.50	V
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	D.C. Single side cooled per chip				0.47	°C/W
R <sub>th(c-h)</sub>	Thermal resistance case to heatsink	D.C. 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)			2.4		3.0	N·m
	Mounting torque(M6)			3.5		5.0	N·m
T <sub>vj</sub>	Junction temperature			-40		150	°C
T <sub>stg</sub>	Stored temperature			-40		125	°C
W <sub>t</sub>	Weight				100		g
Outline	<b>M16</b>						

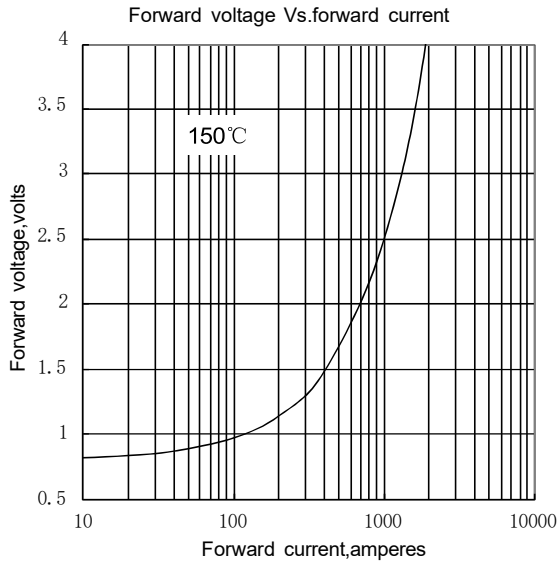


Fig1

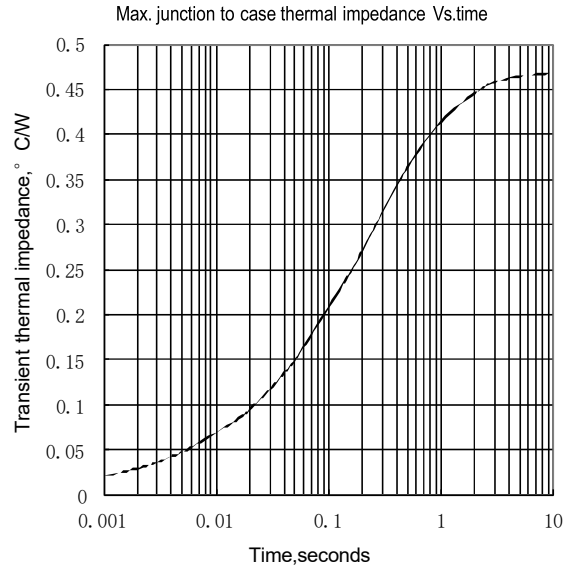


Fig2

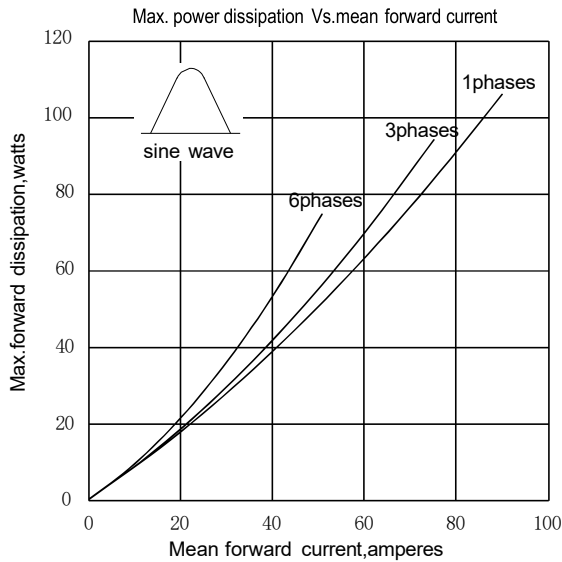


Fig3

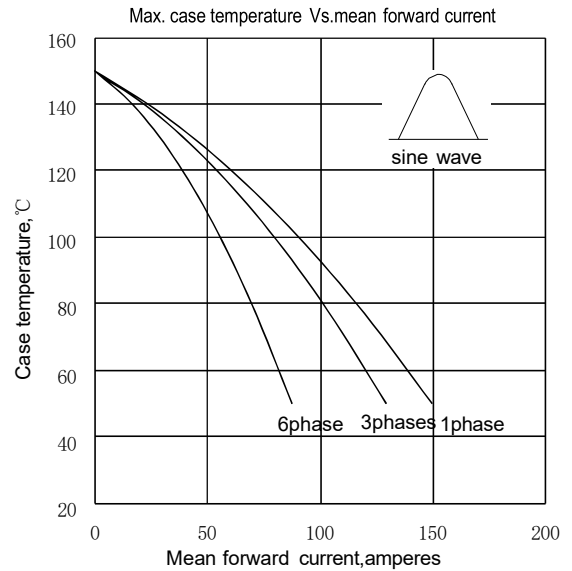


Fig4

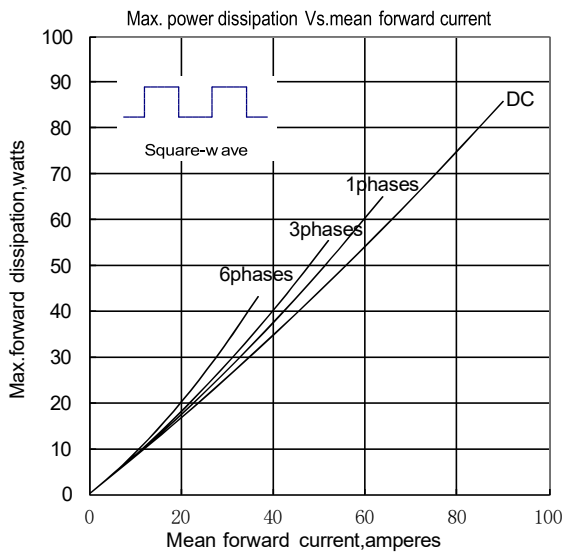


Fig5

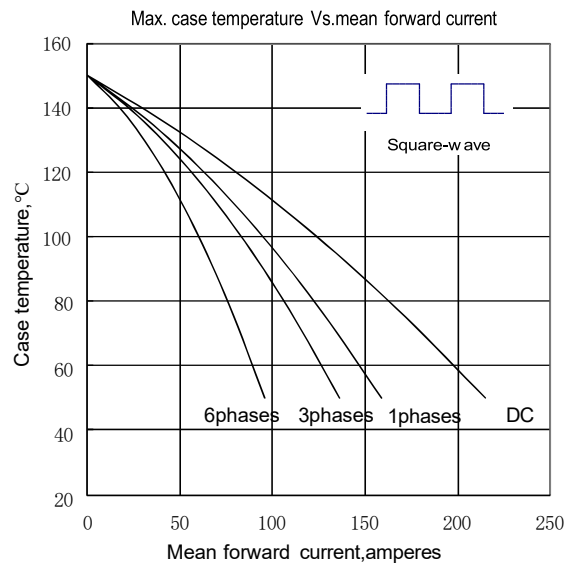


Fig6

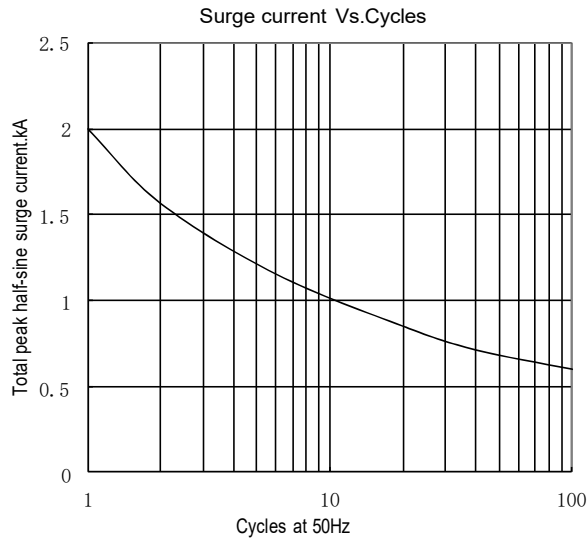
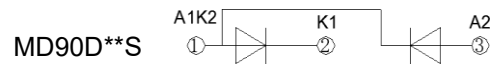
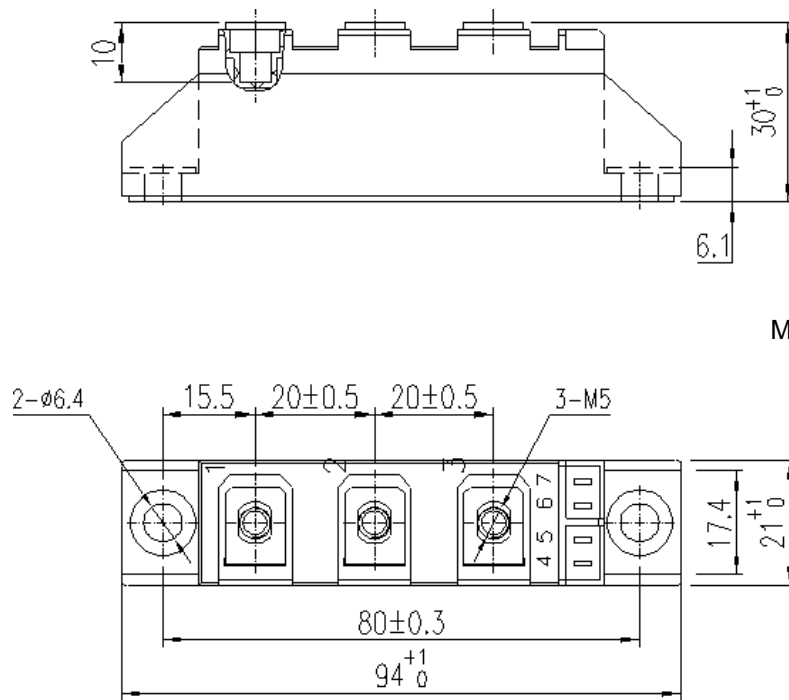


Fig.7

Outline:



Unmarked dimensional tolerance: ±0.5mm