

Features :

- Isolated mounting base 3000V~
- Pressure contact technology with Increased power cycling capability
- Space and weight saving

Typical Applications

- Various rectifiers
- DC supply for PWM inverter

V_{RSM}	V_{RRM}	品名
900V	800V	Mx90D80
1100V	1000V	Mx90D100
1300V	1200V	Mx90D120
1500V	1400V	Mx90D140
1700V	1600V	Mx90D160
1900V	1800V	Mx90D180

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_j(^{\circ}\text{C})$	VALUE			UNIT
				Min.	Typ.	Max.	
$I_{F(AV)}$	Mean forward current	180° half sine wave 50Hz Single side cooled, $T_c=100^{\circ}\text{C}$	150			90	A
$I_{F(RMS)}$	RMS forward current		150			141	A
I_{RRM}	Repetitive peak current	at V_{RRM}	150			8	mA
I_{FSM}	Surge forward current	10ms half sine wave $V_R=0.6V_{RRM}$	150			2.3	kA
I^2t	I^2t for fusing coordination					26	$\text{A}^2\text{s} \times 10^3$
V_{FO}	Threshold voltage		150			0.80	V
r_F	Forward slope resistance					1.70	mΩ
V_{FM}	Peak forward voltage	$I_{FM}=270\text{A}$	25			1.38	V
$R_{th(j-c)}$	Thermal resistance Junction to case	D.C. Single side cooled per chip				0.47	$^{\circ}\text{C}/\text{W}$
$R_{th(c-h)}$	Thermal resistance case to heatsink	D.C. Single side cooled per chip				0.20	$^{\circ}\text{C}/\text{W}$
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min, $I_{iso}:1\text{mA(max)}$		3000			V
F_m	Terminal connection torque(M5)			2.4		3.0	N·m
	Mounting torque(M6)				6		N·m
T_{vj}	Junction temperature			-40		150	$^{\circ}\text{C}$
T_{stg}	Stored temperature			-40		125	$^{\circ}\text{C}$
W_t	Weight				170		g
Outline	M01						

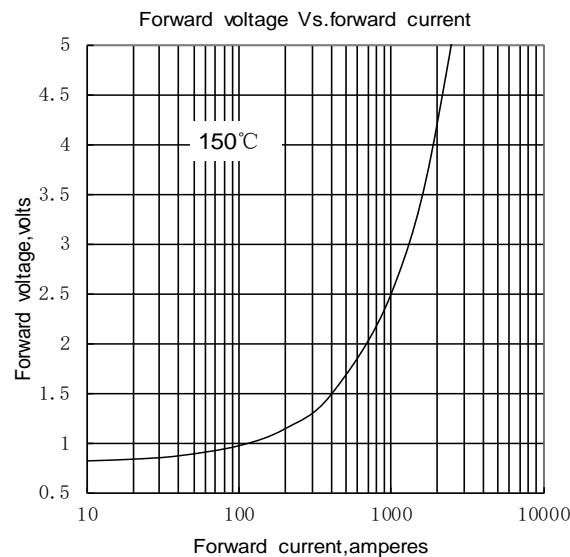


Fig.1

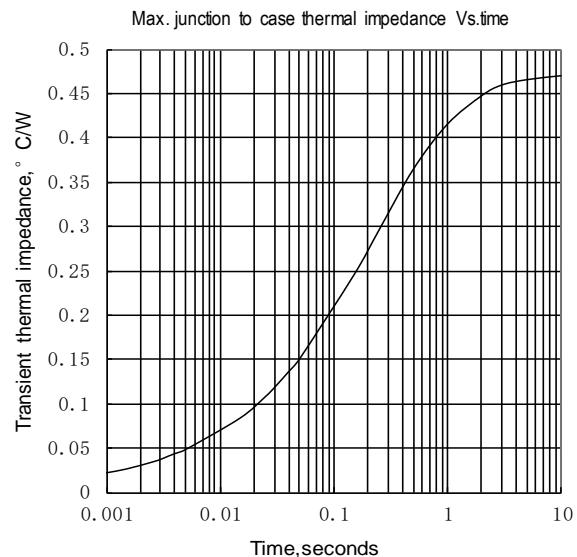


Fig.2

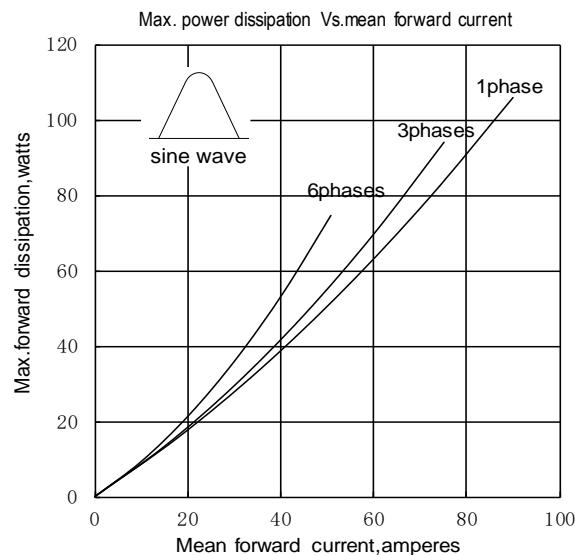


Fig.3

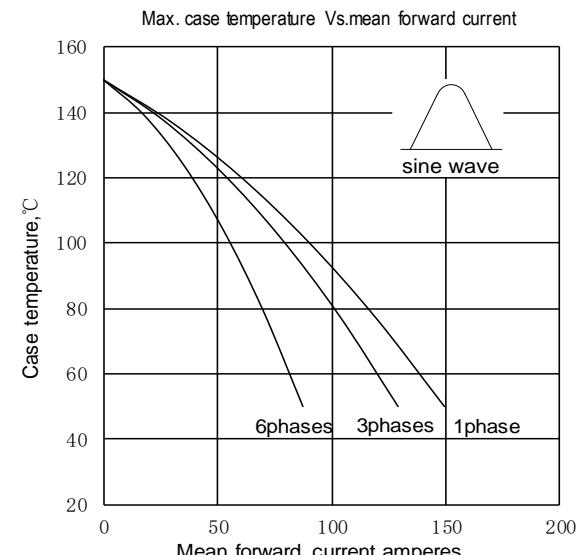


Fig.4

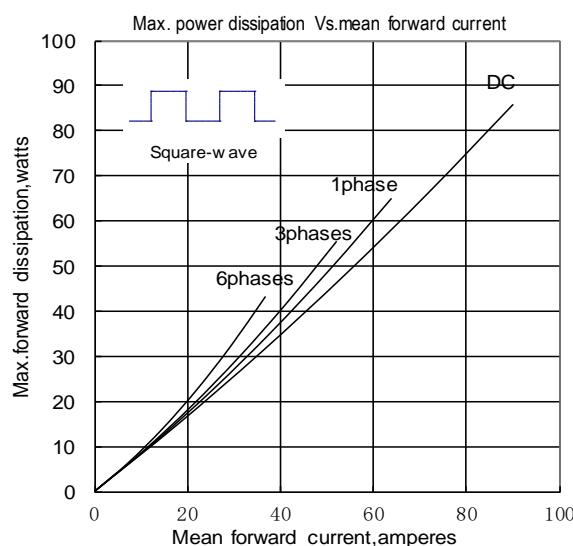


Fig.5

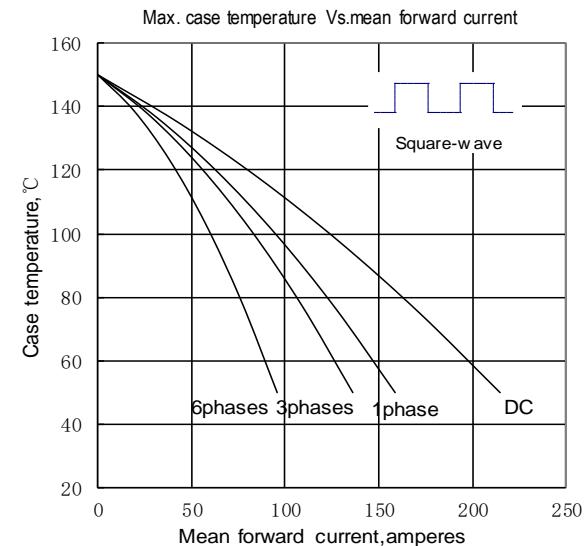


Fig.6

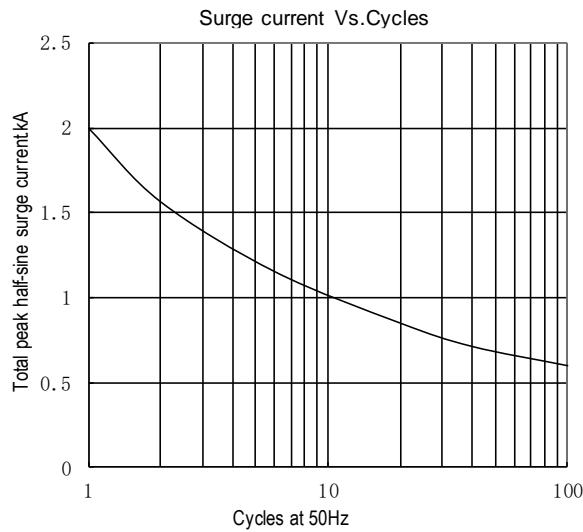
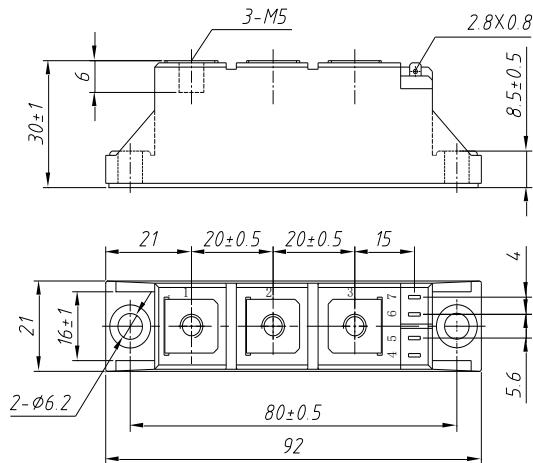
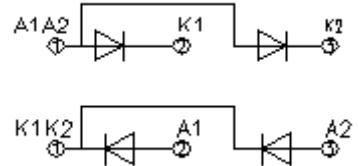


Fig.7



MR90D**

MC90D**

Unmarked dimensional tolerance : $\pm 0.5\text{mm}$