

**Features :**

- Isolated mounting base 2500V~
- Pressure contact technology with Increased power cycling capability
- Space and weight saving

**Typical Applications :**

- AC/DC Motor drives
- Various rectifiers
- DC supply for PWM inverter

V <sub>DSM</sub> ,V <sub>RSM</sub>	V <sub>DRM</sub> ,V <sub>RRM</sub>	品名
900V	800V	Mx1000T80W
1100V	1000V	Mx1000T100W
1300V	1200V	Mx1000T120W
1500V	1400V	Mx1000T140W
1700V	1600V	Mx1000T160W
1900V	1800V	Mx1000T180W

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T <sub>j</sub> (°C)	VALUE			UNIT
				Min	Type	Max	
I <sub>T(AV)</sub>	Mean on-state current	180° half sine wave 50Hz Single side cooled,T <sub>c</sub> =55°C	125			1000	A
I <sub>T(RMS)</sub>	RMS on-state current					1570	A
V <sub>DRM</sub> /V <sub>RRM</sub>	Repetitive peak off-state voltage Repetitive peak reverse voltage	tp=10ms	125	800		1800	V
I <sub>DRM</sub> I <sub>RRM</sub>	Repetitive peak current	at V <sub>DRM</sub> at V <sub>RRM</sub>	125			55	mA
I <sub>TSM</sub>	Surge on-state current	10ms half sine wave, V <sub>R</sub> =0.6V <sub>RRM</sub>	125			26.0	kA
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination					3380	A <sup>2</sup> s*10 <sup>3</sup>
V <sub>TO</sub>	Threshold voltage		125			0.81	V
r <sub>T</sub>	On-state slope resistance					0.21	mΩ
V <sub>TM</sub>	Peak on-state voltage	I <sub>TM</sub> =3000A	25			2.0	V
dv/dt	Critical rate of rise of off-state voltage	V <sub>DM</sub> =67%V <sub>DRM</sub>	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A t <sub>r</sub> ≤0.5μs Repetitive	125			100	A/μs
I <sub>GT</sub>	Gate trigger current	V <sub>A</sub> =12V, I <sub>A</sub> =1A	25	30		200	mA
V <sub>GT</sub>	Gate trigger voltage			1.0		3.0	V
I <sub>H</sub>	Holding current			20		200	mA
V <sub>GD</sub>	Non-trigger gate voltage	V <sub>DM</sub> =67%V <sub>DRM</sub>	125	0.2			V
I <sub>GD</sub>	Non-trigger gate current	V <sub>DM</sub> =67%V <sub>DRM</sub>	125	1.5			mA
R <sub>th(j-c)</sub>	Thermal resistance Junction to case	Single side cooled, per chip. DC				0.052	°C/W
R <sub>th(c-w)</sub>	Thermal resistance case to water	Single side cooled, per chip. (6L/min)				0.037	°C/W
V <sub>iso</sub>	Isolation voltage	50Hz,R.M.S,t=1min,I <sub>iso</sub> :1mA(MAX)		2500			V
F <sub>m</sub>	Terminal connection torque(M12)			12.0		16.0	N·m
	Mounting torque(M8)			10.0		12.0	N·m
T <sub>vj</sub>	Junction temperature			-40		125	°C
T <sub>stg</sub>	Stored temperature			-40		125	°C
T <sub>water</sub>	Water temperature	Water flow=6L/min		-		30	°C
-	Water Pressure loss					41	kPa
W <sub>t</sub>	Weight					3220	g
Outline	M15						

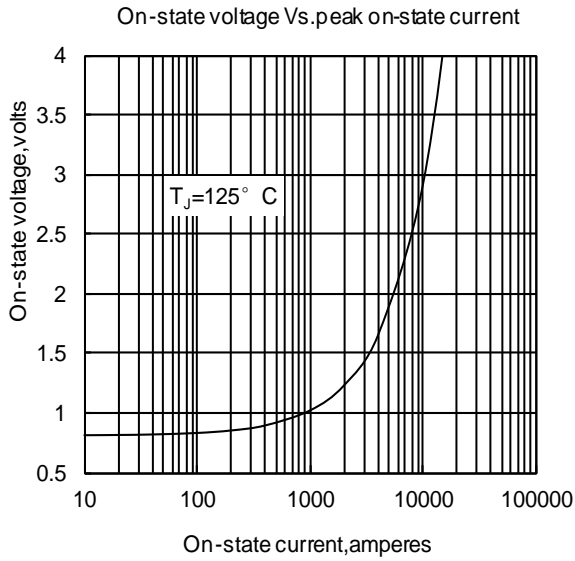


Fig1

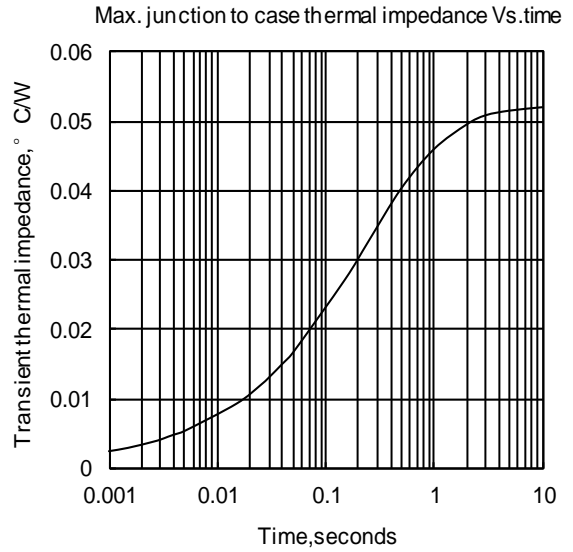


Fig2

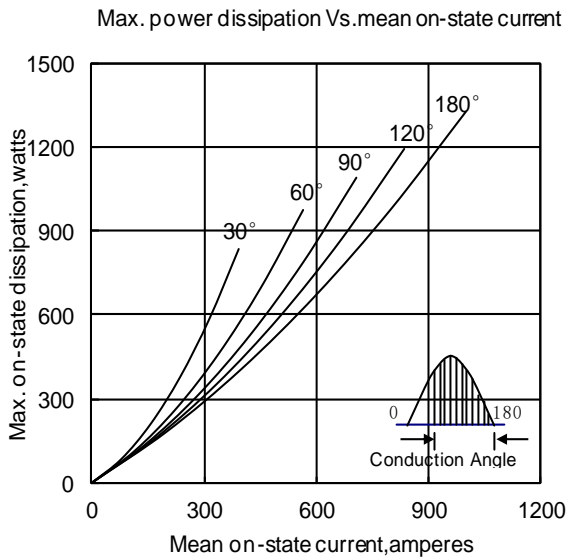


Fig3

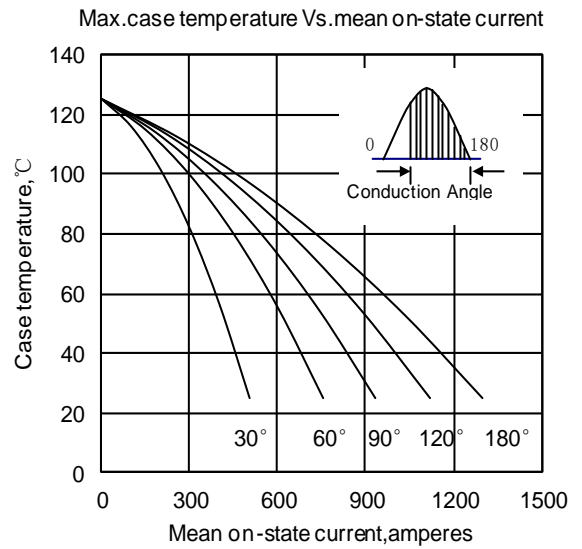


Fig4

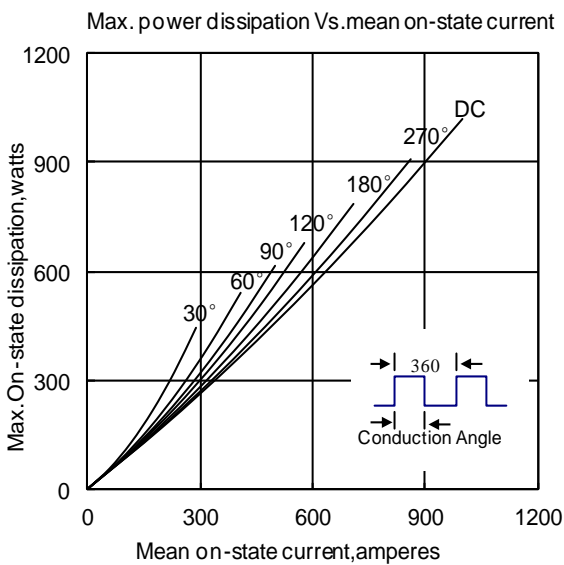


Fig5

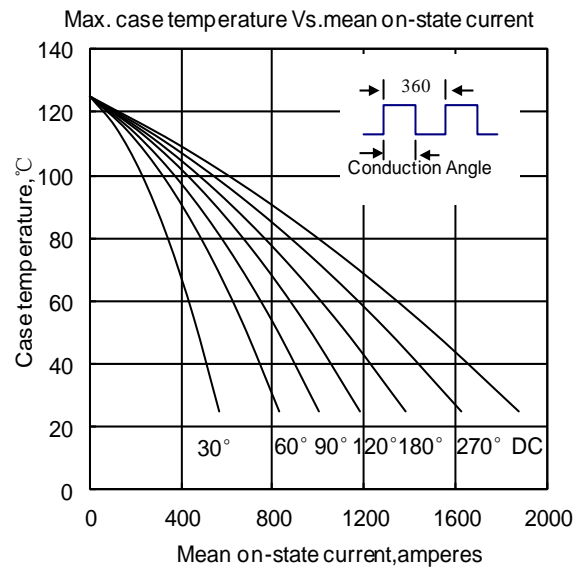


Fig6

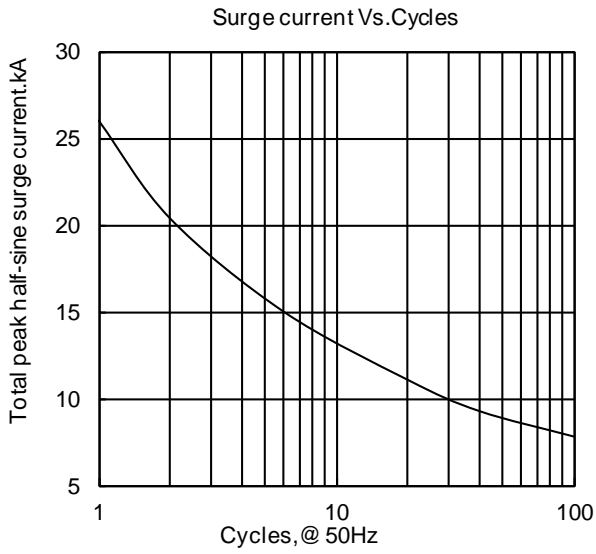


Fig7

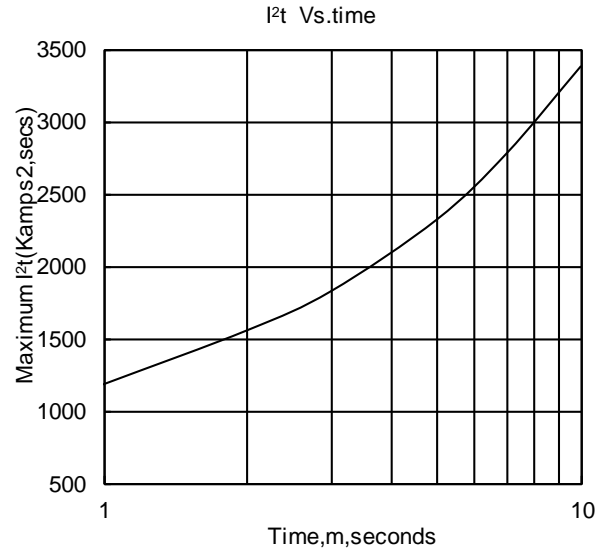


Fig8

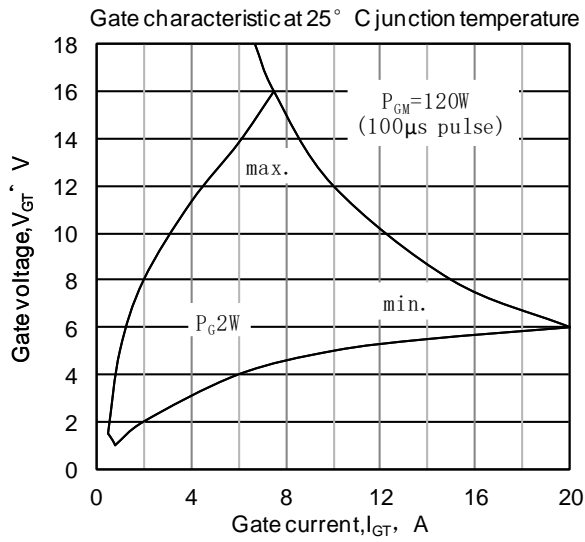


Fig9

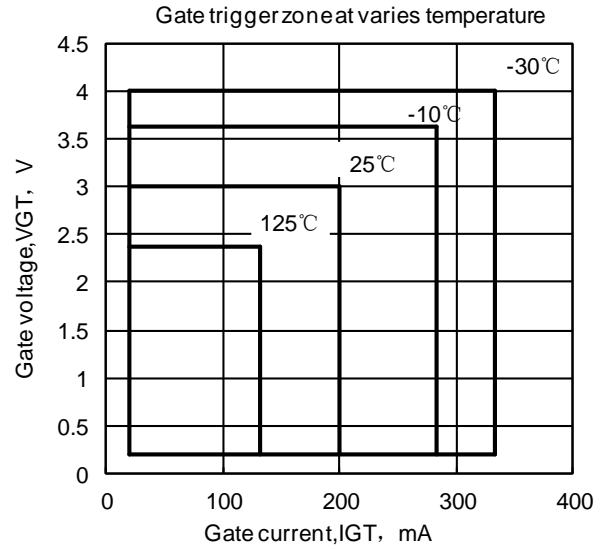


Fig10

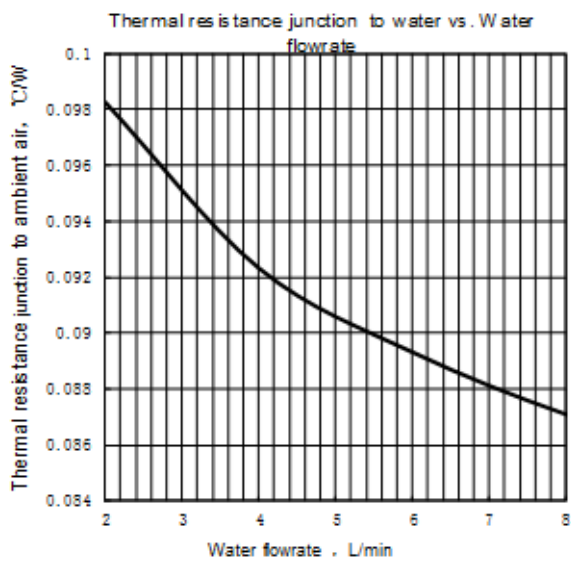


Fig11

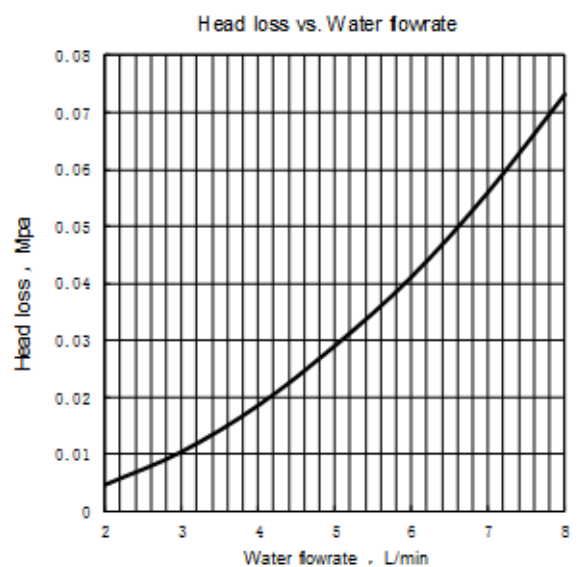
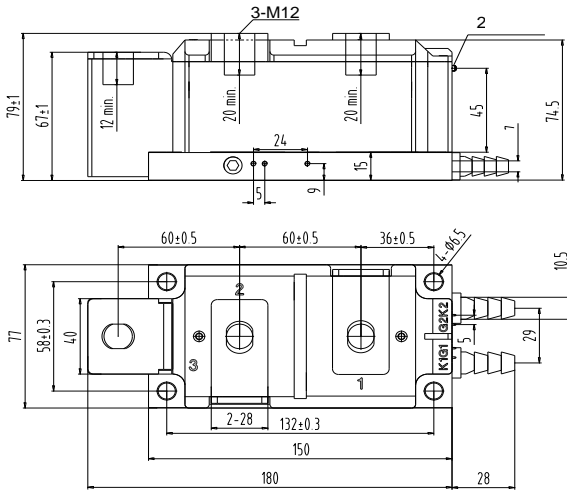


Fig12



MD1000T\*\*W

MR1000T\*\*W

MC1000T\*\*W

