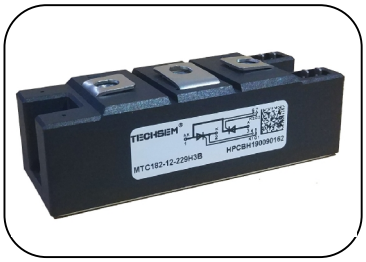


Features：

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

Typical Applications：

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

V_{DRM},V_{RRM}	Type & Outline
600V	MTC182-06-229H3/229H3B
800V	MTC182-08-229H3/229H3B
1000V	MTC182-10-229H3/229H3B
1200V	MTC182-12-229H3/229H3B
1400V	MTC182-14-229H3/229H3B
1600V	MTC182-16-229H3/229H3B
1800V	MTC182-18-229H3/229H3B

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	T_j(°C)	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz Single side cooled, T_c=85°C	125			182	A
$I_{T(RMS)}$	RMS on-state current		125			286	A
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			40	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			4.0	kA
I^2t	I^2t for fusing coordination					80	A^2s*10^3
V_{TO}	Threshold voltage		125			0.83	V
r_T	On-state slope resistance					1.30	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=550A	25			1.80	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM}=67%V_{DRM}	125			1000	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A t_r≤0.5μs Repetitive	125			200	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		200	mA
V_{GT}	Gate trigger voltage			0.6		2.5	V
I_H	Holding current			10		250	mA
I_L	Latching current					1000	mA
V_{GD}	Non-trigger gate voltage	V_{DM}=67%V_{DRM}	125			0.2	V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled per chip				0.16	°C /W
$R_{th(c-h)}$	Thermal resistance case to heatsink	Single side cooled per chip				0.08	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		3000			V
F_m	Terminal connection torque(M6)			2.5		4.0	N·m
	Mounting torque(M6)			4.5		6.0	N·m
T_{vj}	Junction temperature			-40		125	°C
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				165		g
Outline	229H3、229H3B						

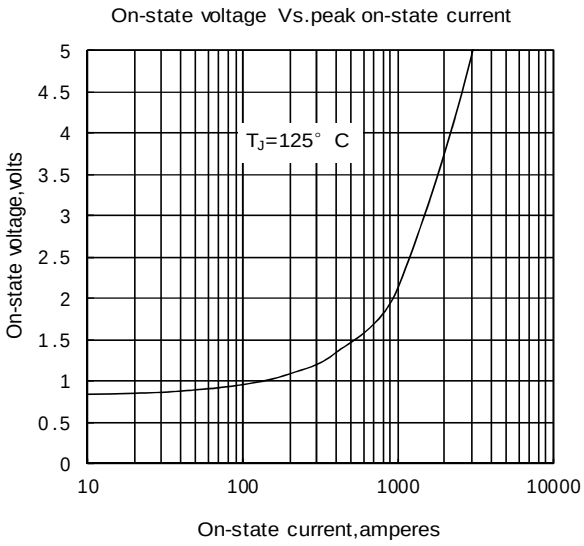


Fig1

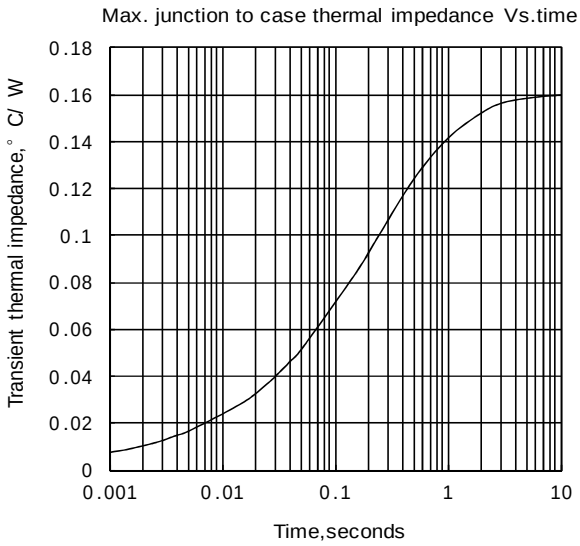


Fig2

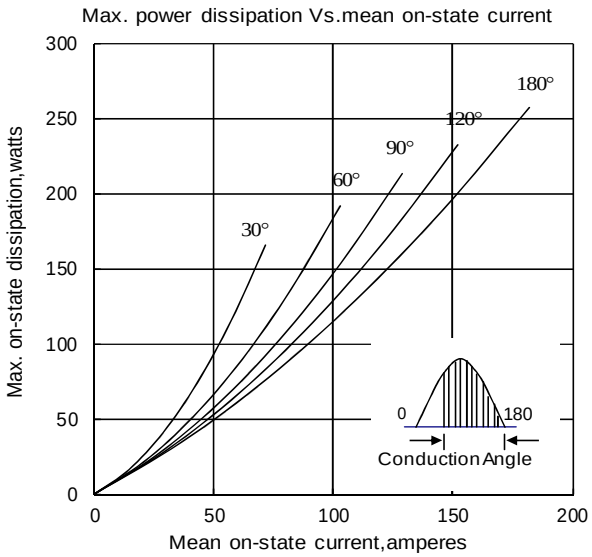


Fig3

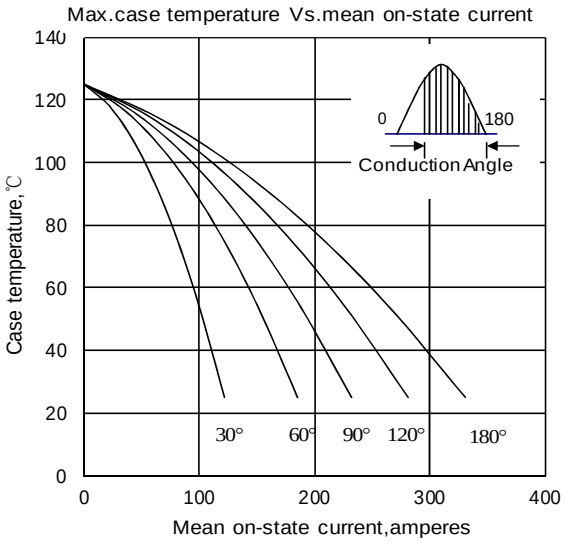
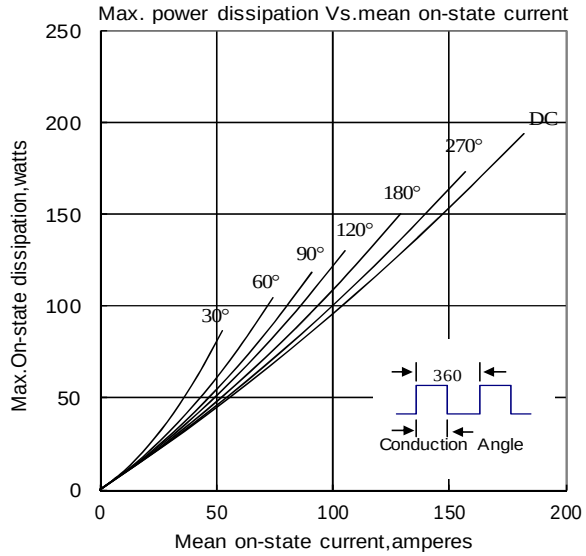


Fig4



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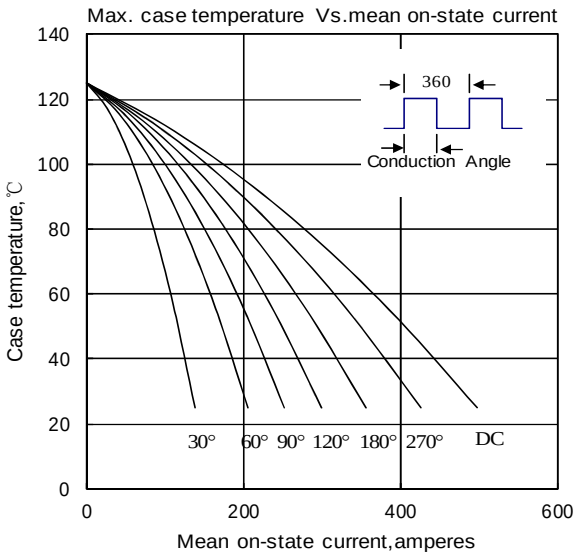


Fig6

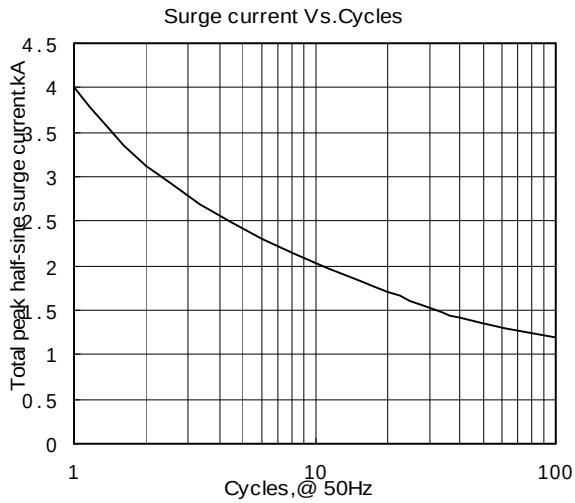


Fig7

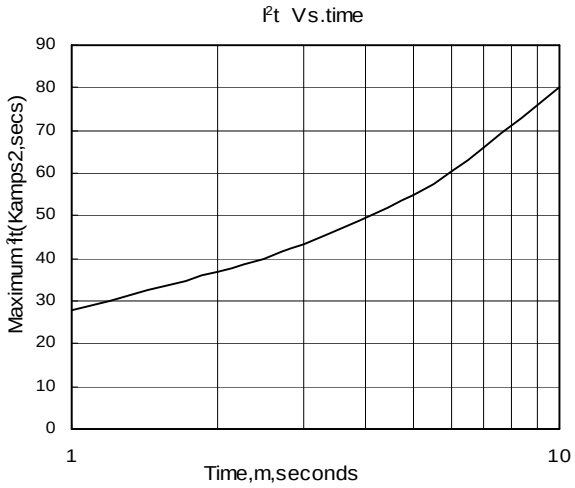


Fig8

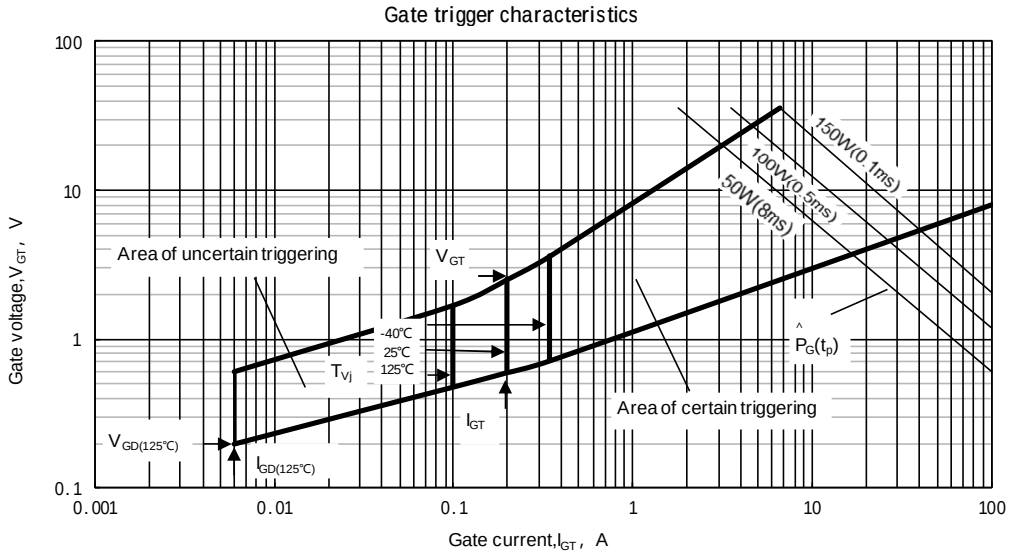
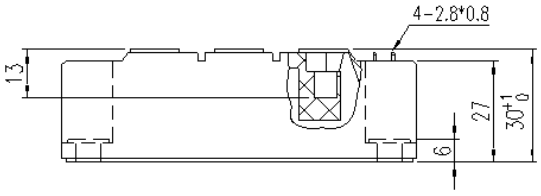
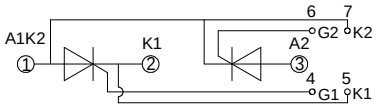


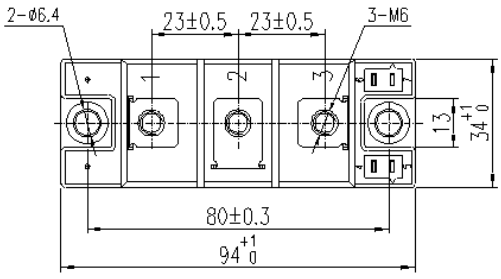
Fig.9

Outline:

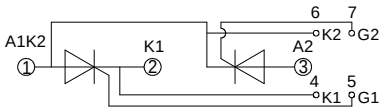


MTC





MTC(B)



Unmarked dimensional tolerance：±0.5mm

TECHSEM reserves the right to change specifications without notice.