



Features :

- n Isolated mounting base 3000V~
- n Pressure contact 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	
800V	MTC240-08-216F3E	MTC240-08-216F3EB
1000V	MTC240-10-216F3E	MTC240-10-216F3EB
1200V	MTC240-12-216F3E	MTC240-12-216F3EB
1400V	MTC240-14-216F3E	MTC240-14-216F3EB
1600V	MTC240-16-216F3E	MTC240-16-216F3EB
1800V	MTC240-18-216F3E	MTC240-18-216F3EB
1800V	MT240-18-216F3EG	

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			240	A
I _{T(RMS)}	RMS on-state current		125			377	A
I _{DRM} I _{RRM}	Repetitive peak current	at V _{DRM} at V _{RRM}	125			20	mA
I _{TSM}	Surge on-state current	10ms half sine wave V _R =60%V _{RRM}	125			7.0	kA
I ² t	I ² t for fusing coordination					245	10 ³ A ² s
V _{TO}	Threshold voltage		125			0.77	V
r _T	On-state slope resistance					0.72	mΩ
V _{TM}	Peak on-state voltage	I _{TM} =720A	25			1.67	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	I _{TM} =400A, 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		180	mA
V _{GT}	Gate trigger voltage			0.7		2.5	V
I _H	Holding current			10		180	mA
I _L	Latching current					1500	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				0.140	°C /W
R _{th(c-h)}	Thermal resistance case to heat sink	Single side cooled per chip				0.080	°C /W
V _{iso}	Isolation voltage	50Hz, R.M.S, t=1min, I _{iso} :1mA(MAX)		3000			V
F _m	Terminal connection torque (M6)			4.5		6.0	N·m
	Mounting torque (M6)			4.5		6.0	N·m
T _j	Junction temperature			-40		125	°C
T _{stg}	Stored temperature			-40		125	°C
W _t	Weight				350		g
Outline	216F3E, 216F3EB						

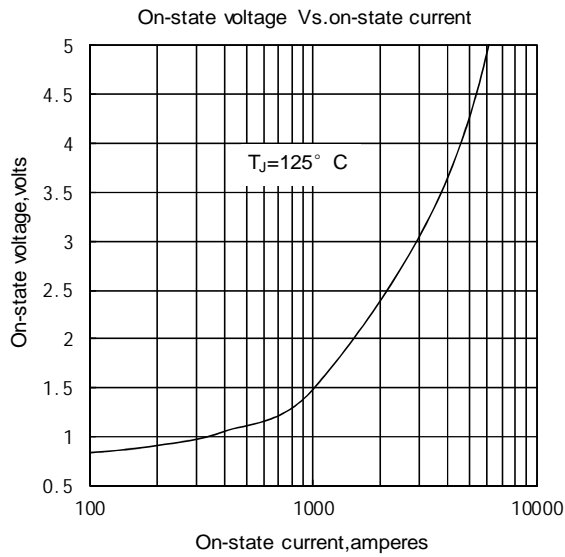


Fig.1

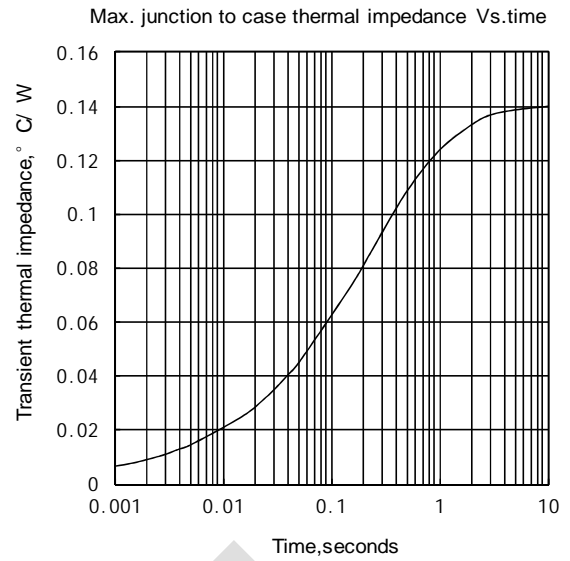


Fig.2

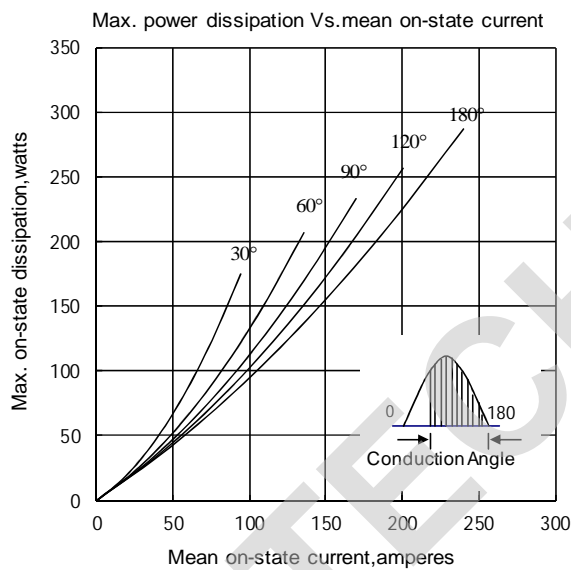


Fig.3

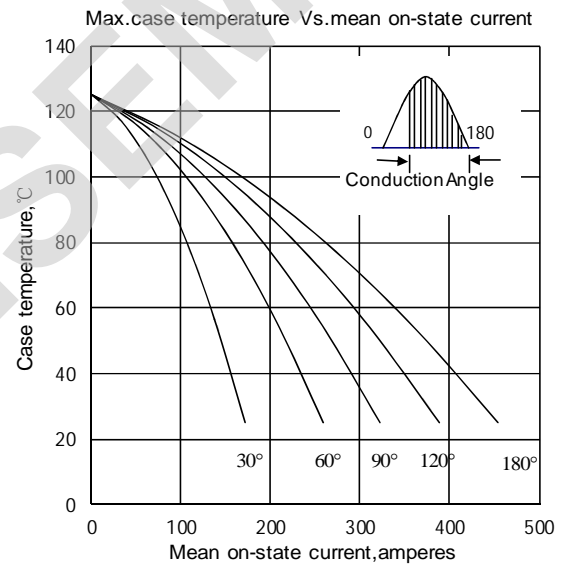


Fig.4

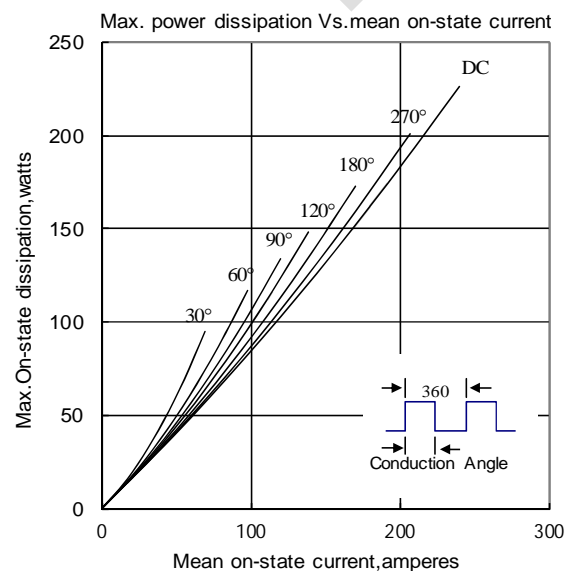


Fig.5

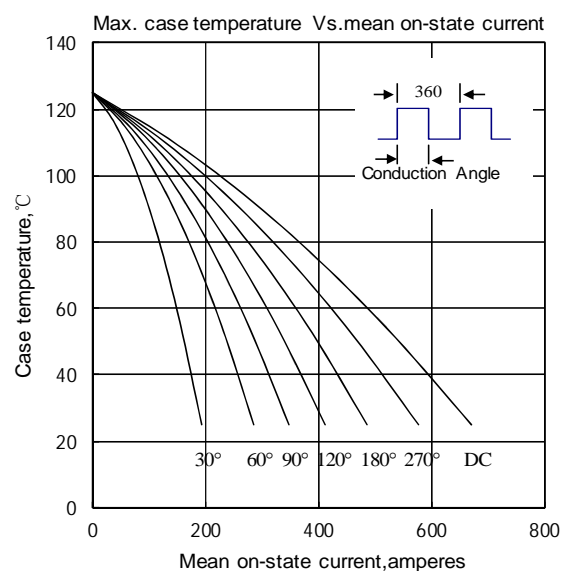


Fig.6

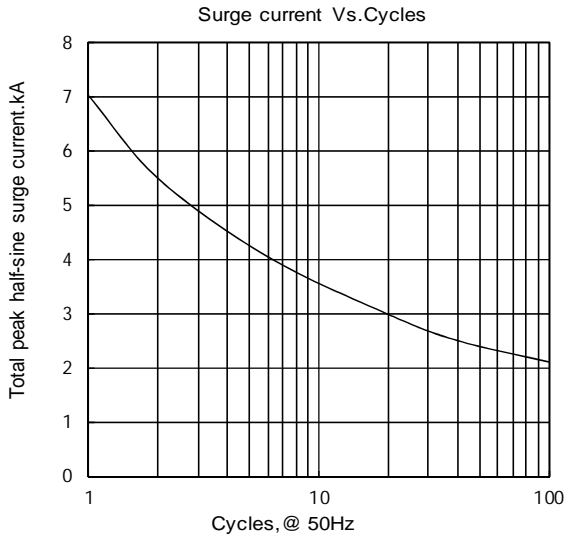


Fig.7

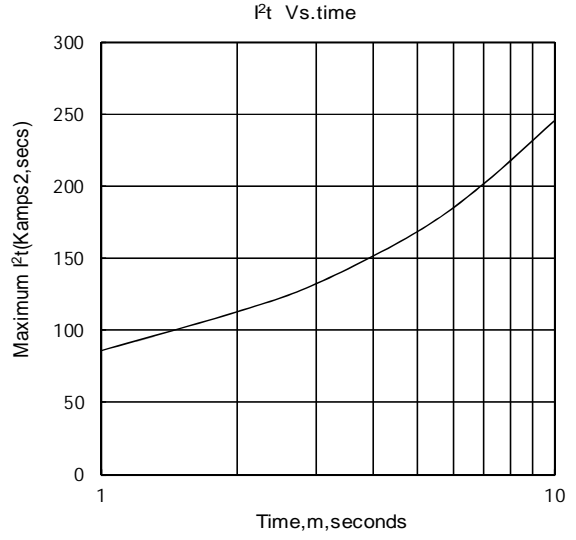


Fig.8

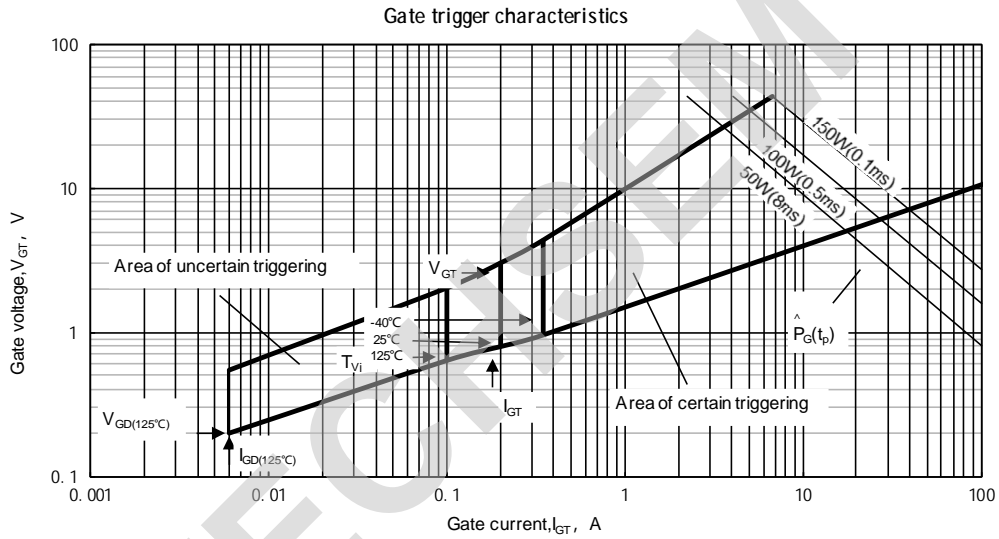
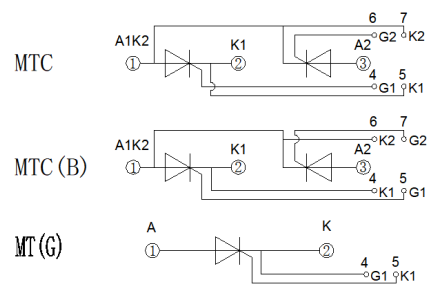
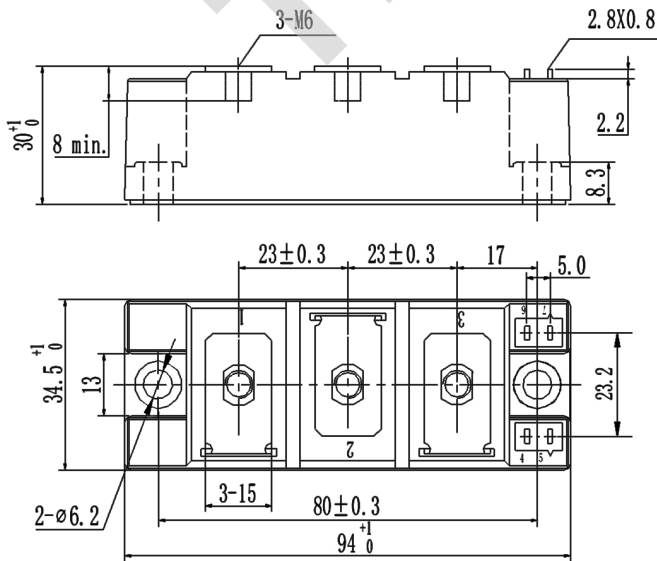


Fig.9

Outline:



Unmarked dimensional tolerance: ±0.5mm

TECHSEM reserves the right to change specifications without notice.