

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_{RRM}, V_{DRM}	Type & Outline	
800V	MTx350-08-415F3	MFx350-08-415F3
1000V	MTx350-10-415F3	MFx350-10-415F3
1200V	MTx350-12-415F3	MFx350-12-415F3
1400V	MTx350-14-415F3	MFx350-14-415F3
1600V	MTx350-16-415F3	MFx350-16-415F3
1800V	MTx350-18-415F3	MFx350-18-415F3
1800V	MT350-18-415F3G	

MTx stands for any type of **MTC, MTA, MTK**
 MFx stands for any type of **MFC, MFA, MFK**

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	$T_j(^{\circ}C)$	VALUE			UNIT
				Min	Type	Max	
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz	125			350	A
$I_{T(RMS)}$	RMS on-state current	Single side cooled, $T_c=85^{\circ}C$				549	A
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			35	mA
I_{TSM}	Surge on-state current	$V_R=60\%V_{RRM}, t=10ms$ half sine.	125			11	kA
I^2t	I^2t for fusing coordination		125			605	10^3A^2s
V_{TO}	Threshold voltage		125			0.95	V
r_T	On-state slope resistance					0.36	mΩ
V_{TM}	Peak on-state voltage	$I_{TM}=1050A$	25			1.45	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 $t_r \leq 0.5\mu s$ 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			0.8		2.5	V
I_H	Holding current			10		180	mA
I_L	Latching current					1000	mA
V_{GD}	Non-trigger gate voltage	$V_{DM}=67\%V_{DRM}$	125			0.20	V
$R_{th(j-c)}$	Thermal resistance Junction to case	Single side cooled per chip				0.085	$^{\circ}C/W$
$R_{th(c-h)}$	Thermal resistance case to heatsink	Single side cooled per chip				0.040	$^{\circ}C/W$
V_{iso}	Isolation voltage	50Hz, R.M.S, $t=1min, I_{iso}: 1mA(MAX)$		3000			V
F_m	Terminal connection torque(M10)			10.0		12.0	N·m
	Mounting torque(M6)			4.5		6.0	N·m
T_{vj}	Junction temperature			-40		125	$^{\circ}C$
T_{stg}	Stored temperature			-40		125	$^{\circ}C$
W_t	Weight				1260		g
Outline	415F3						

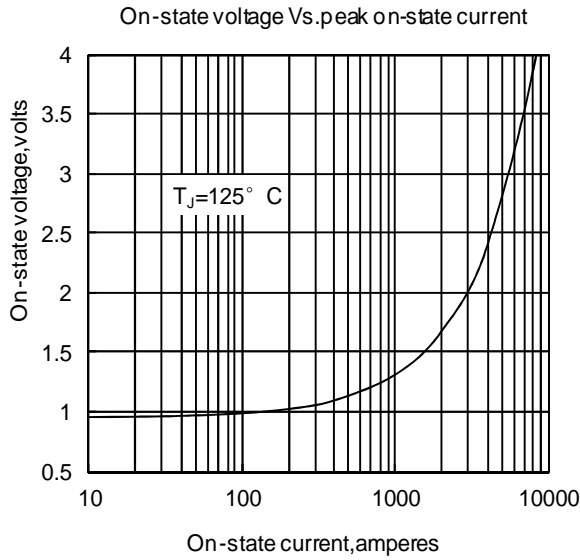


Fig1

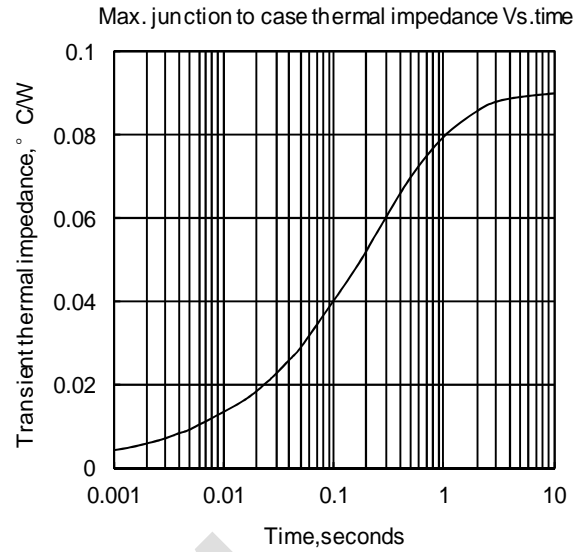


Fig2

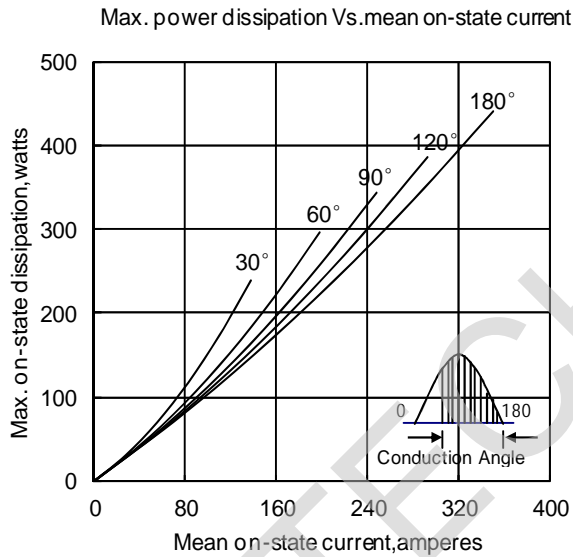


Fig3

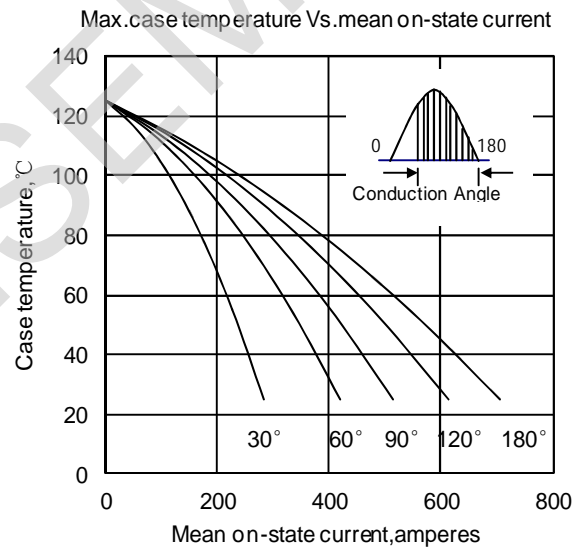


Fig4

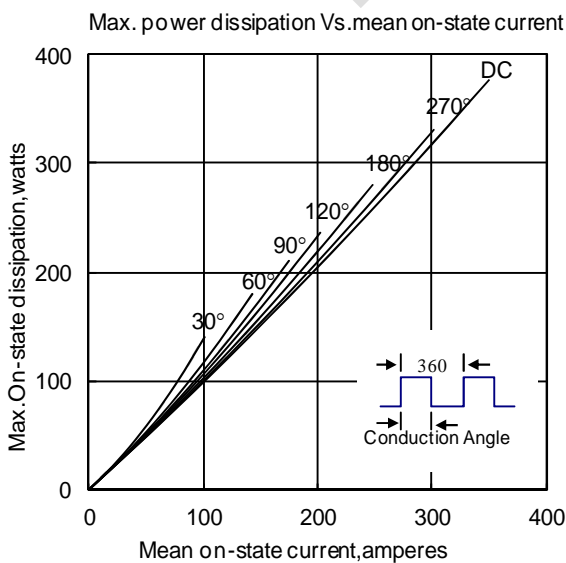


Fig5

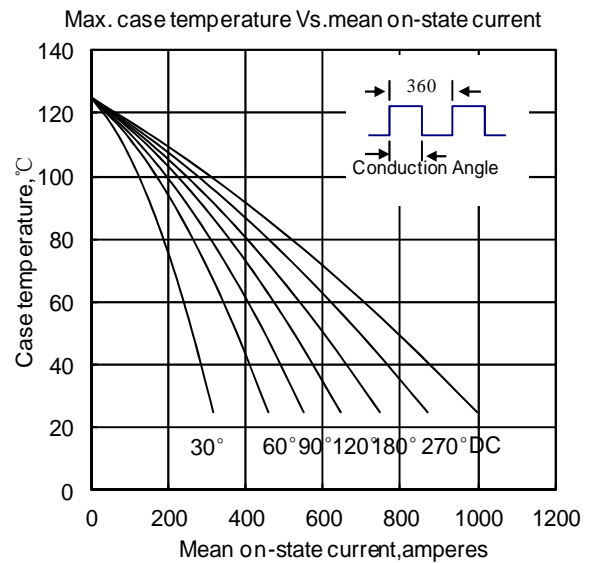


Fig6

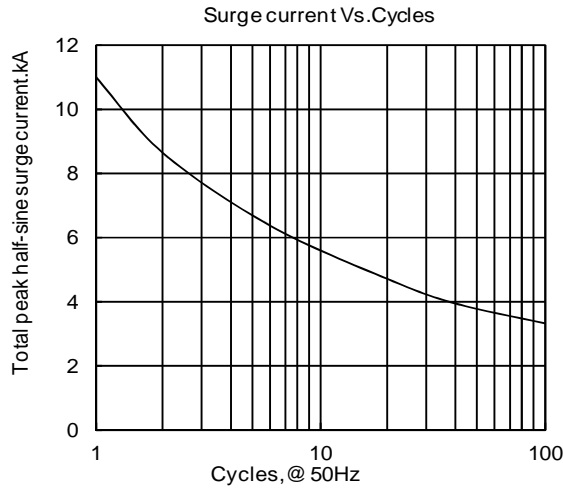


Fig 7

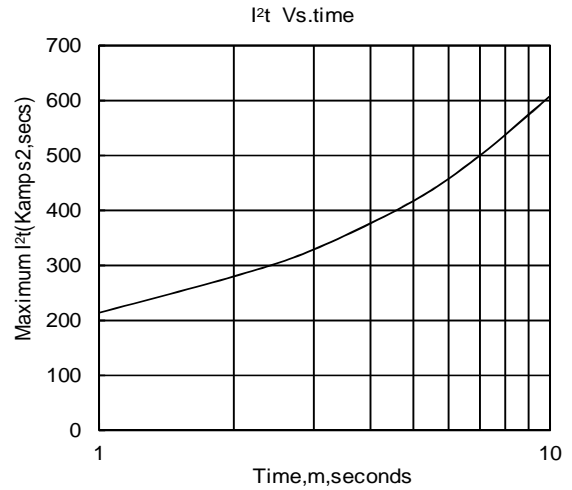


Fig 8

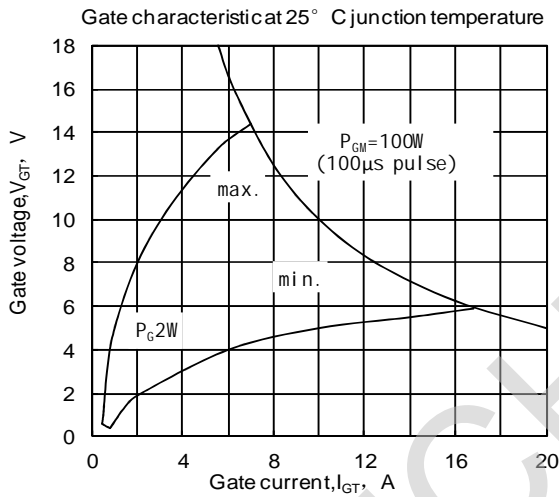


Fig 9

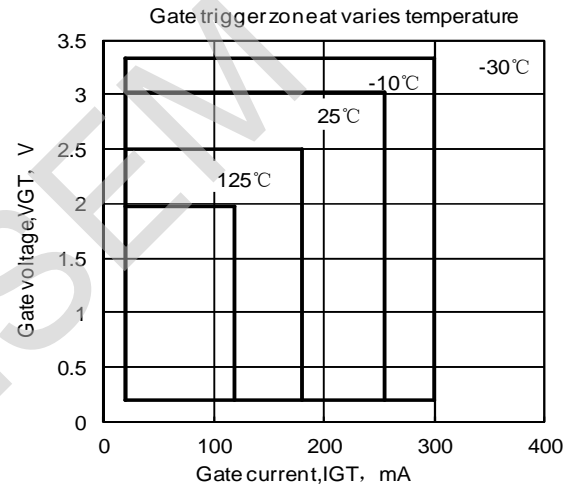
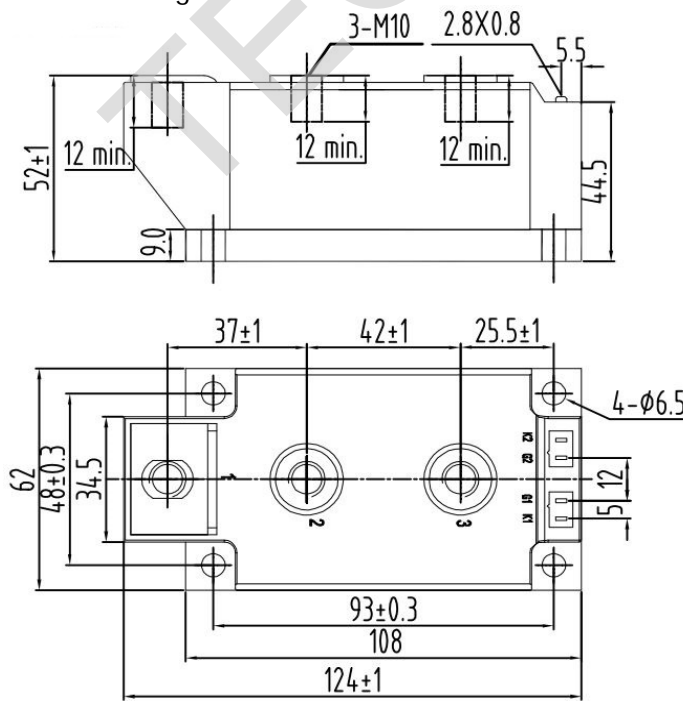


Fig 10

Outline:



Unmarked dimensional tolerance: ±0.5mm

