

**Features :**

- Isolated mounting base 3000V~
- 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 _{DSM} , V _{RSM}	V _{DRM} , V _{RDM}	Type & Outline
2100V	2000V	MFx40-20-215F3
2300V	2200V	MFx40-22-215F3
2600V	2500V	MFx40-25-215F3

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			40	A
I _{T(RMS)}	RMS on-state current					63	A
I _{DRM} I _{RDM}	Repetitive peak current	at V _{DRM} at V _{RDM}	125			10	mA
I _{TSM}	Surge on-state current	10ms half sine wave	125			1.15	kA
I ² t	I ² t for fusing coordination	V _R =60%V _{RDM}				6.6	A ² s*10 ³
V _{TO}	Threshold voltage		125			0.85	V
r _T	On-state slope resistance					5.57	mΩ
V _{TM}	Peak on-state voltage	I _{TM} =120A	25			2.75	V
dv/dt	Critical rate of rise of off-state voltage	V _{DM} =67%V _{DRM}	125			800	V/μs
di/dt	Critical rate of rise of on-state current	Gate source 1.5A t _r ≤0.5μs Repetitive	125			50	A/μs
I _{GT}	Gate trigger current	V _A =12V, I _A =1A	25	30		150	mA
V _{GT}	Gate trigger voltage			0.7		2.5	V
I _H	Holding current			10		200	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				0.65	°C /W
R _{th(c-h)}	Thermal resistance case to heat sink	Single side cooled per chip				0.20	°C /W
V _{iso}	Isolation voltage	50Hz, R.M.S, t=1min, liso: 1mA(MAX)		3000			V
F _m	Terminal connection torque (M5)				4.0		N·m
	Mounting torque (M6)				6.0		N·m
T _{vj}	Junction temperature			-40		125	°C
T _{stg}	Stored temperature			-40		125	°C
W _t	Weight				120		g
Outline	215F3						

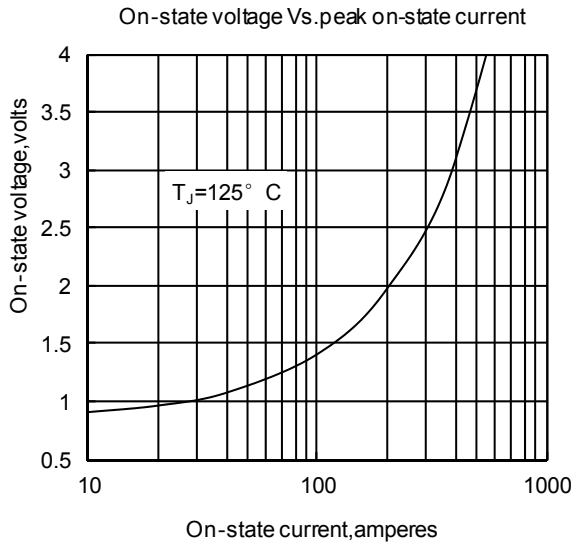


Fig1

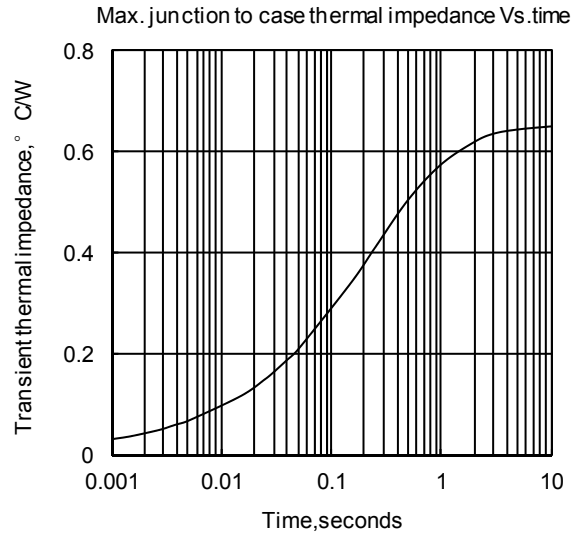


Fig2

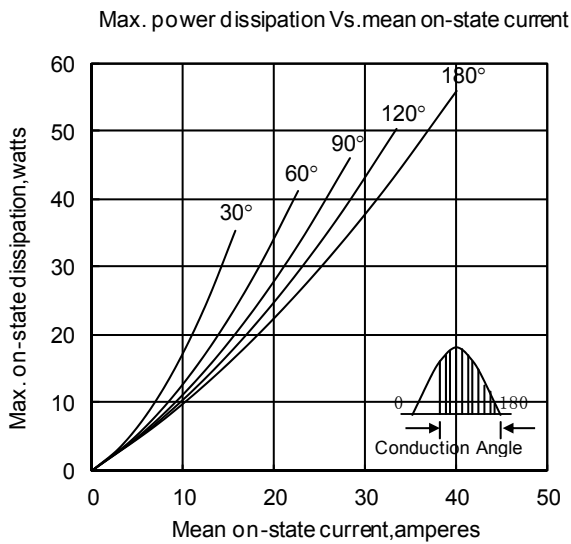


Fig3

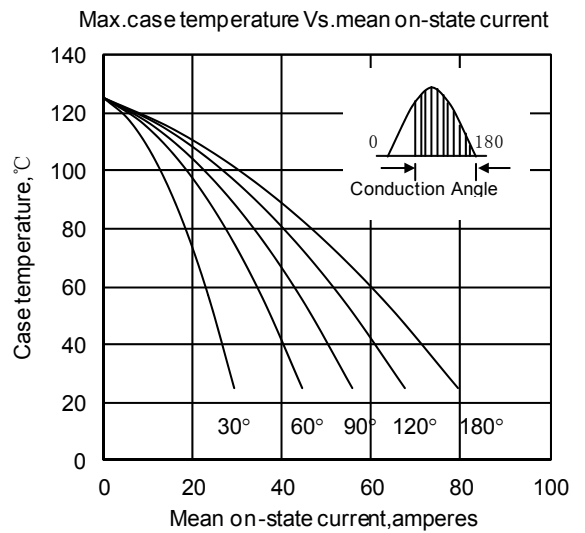


Fig4

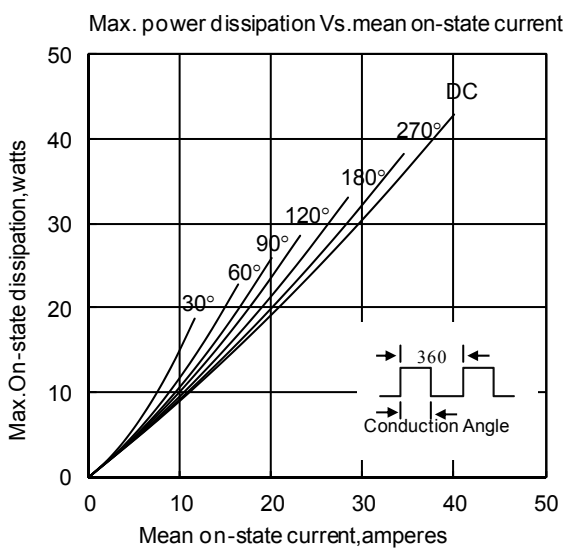


Fig5

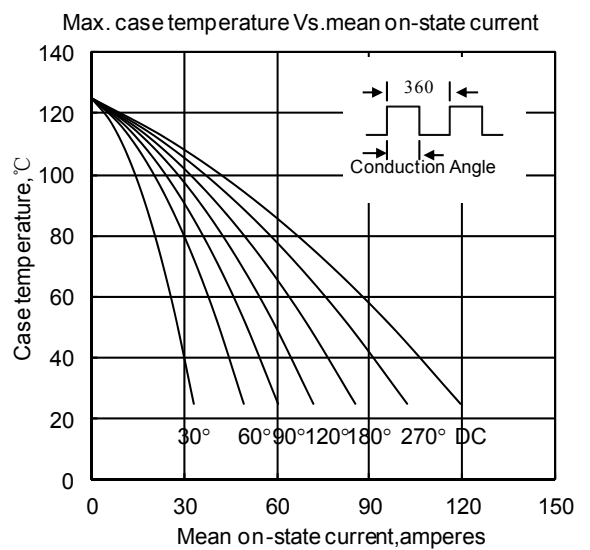


Fig6

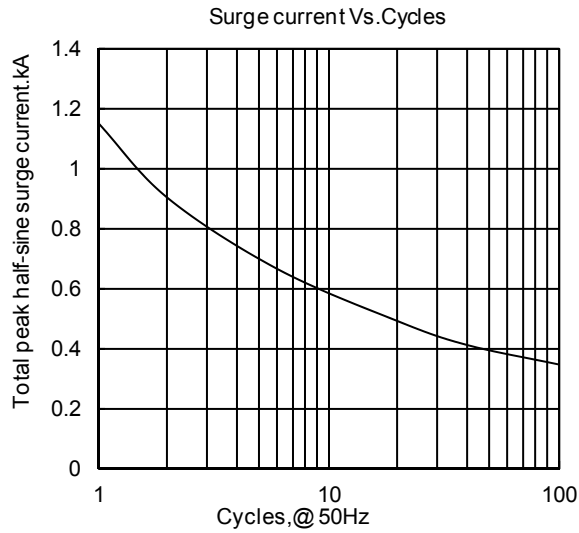


Fig7

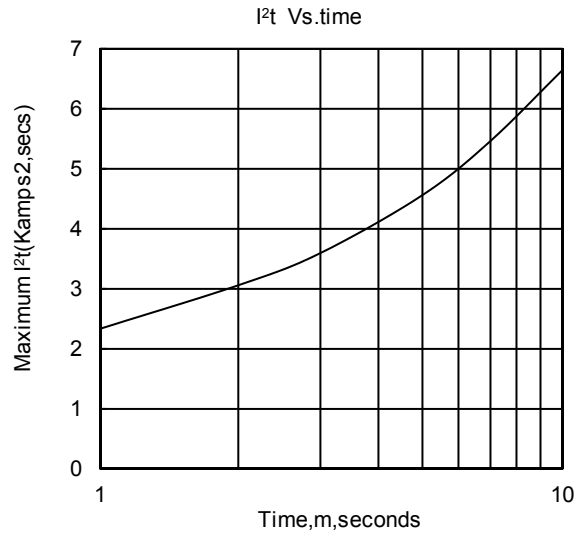


Fig8

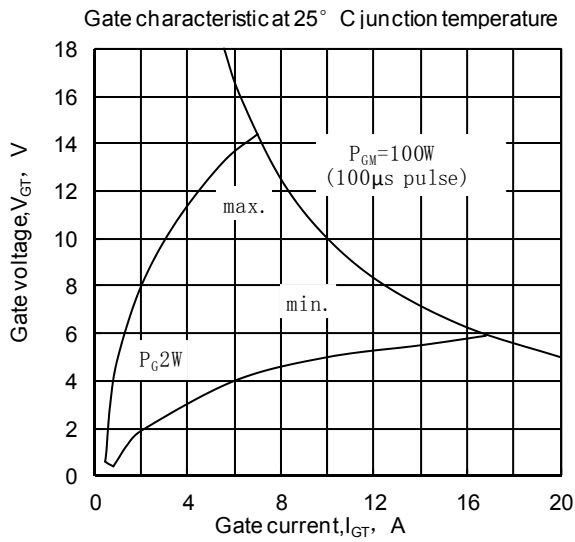


Fig9

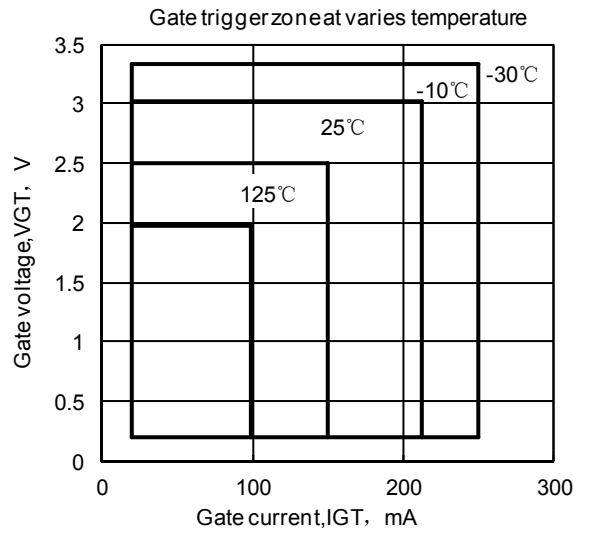


Fig10

Outline:

