TECHSEM

MFC800 MFA800 MFK800 MFX800
Thyristor/Diode Modules

Features:

- Isolated mounting base 3000V~
- Pressure contact technology with Incrtased power cycling capability
- Space and weight savings

Typical Applications

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

$I_{T(AV)}$	800A
V_{DRM}/V_{RRM}	1900~2500V
I_{TSM}	$22A\times10^3$
I^2t	$2420A^2S\cdot10^3$

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 water cooled,T_c=55°C	125			800	A
$I_{T(RMS)}$	RMS on-state current		125			1256	A
V_{DRM} V_{RRM}	Repetitive peak off-state voltage Repetitive peak reverse voltage	V_{DRM}&V_{RRM} tp=10ms V_{DsM}&V_{RsM}= V_{DRM}&V_{RRM}+100V respectively	125	1900		2500	V
I_{DRM} I_{RRM}	Repetitive peak current	at V_{DRM} at V_{RRM}	125			50	mA
I_{TSM}	Surge on-state current	10ms half sine wave V_R=60%V_{RRM}	125			22.0	KA
I^2t	I^2T for fusing coordination					2420	A^2s*10^3
V_{TO}	Threshold voltage		125			0.88	V
r_T	On-state slop resistance					0.47	mΩ
V_{TM}	Peak on-state voltage	I_{TM}=2400A	25			2.35	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			100	A/μs
I_{GT}	Gate trigger current	V_A=12V, I_A=1A	25	30		200	mA
V_{GT}	Gate trigger voltage			1.0		3.0	V
I_H	Holding current			20		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				0.048	°C /W
$R_{th(c-h)}$	Thermal resistance case to heat sink	Single side cooled				0.024	°C /W
V_{iso}	Isolation voltage	50Hz,R.M.S,t=1min,I_{iso}:1mA(MAX)		3000			V
F_m	Thermal connection torque(M10)				12		N·m
	Mounting torque(M6)				6.0		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				2600		g
Outline	409F3/411F3						

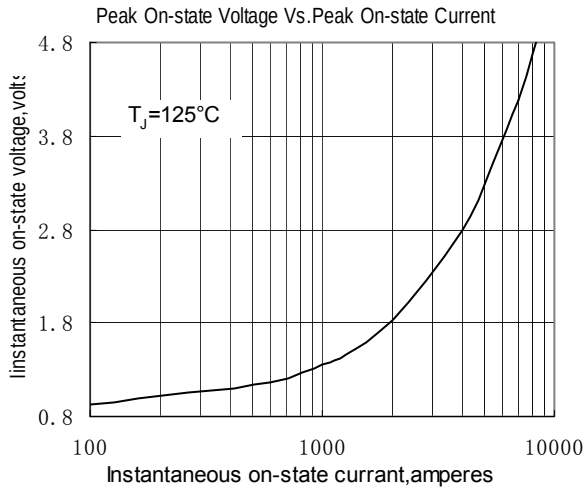


Fig.1

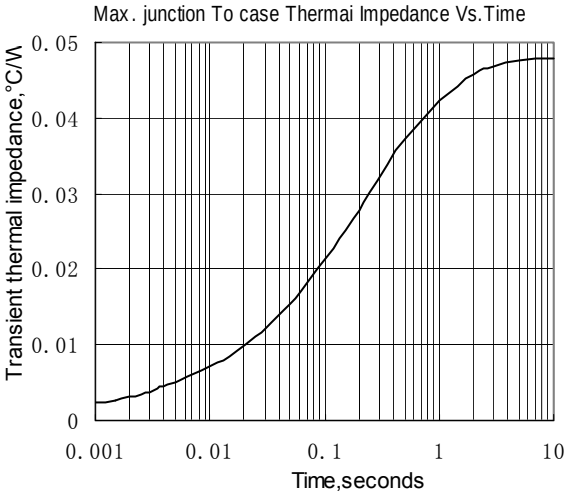


Fig.2

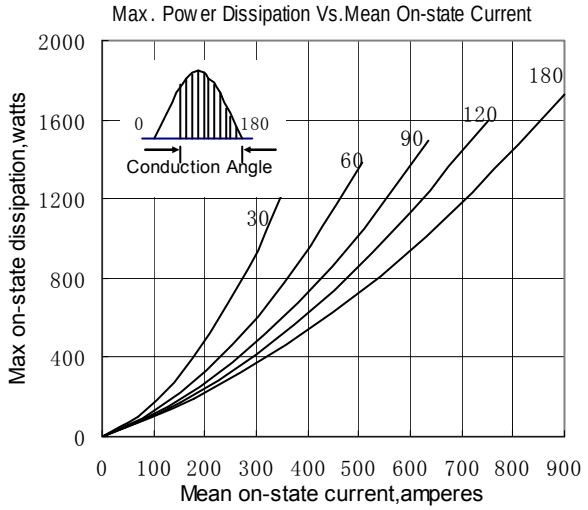


Fig.3

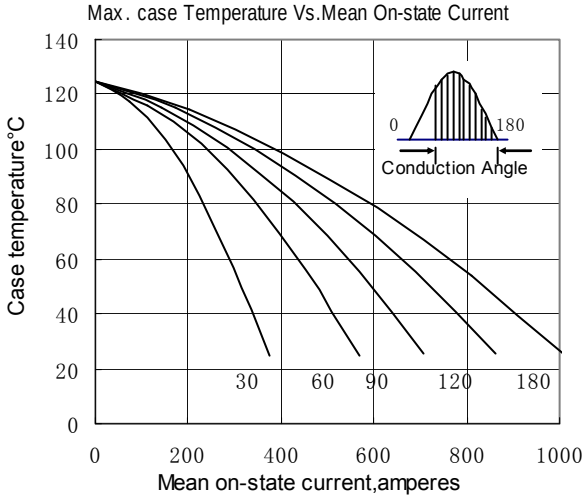


Fig.4

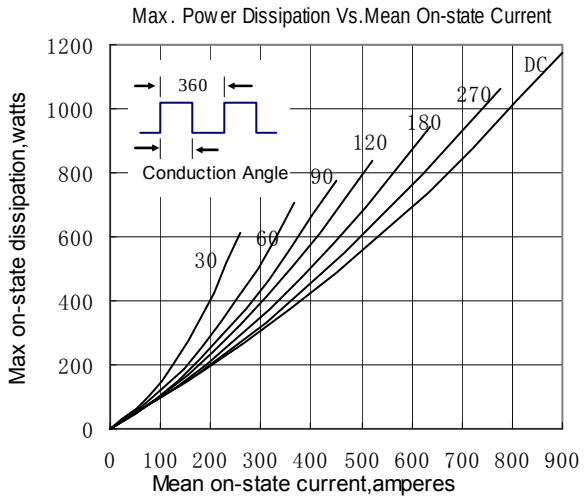


Fig.5

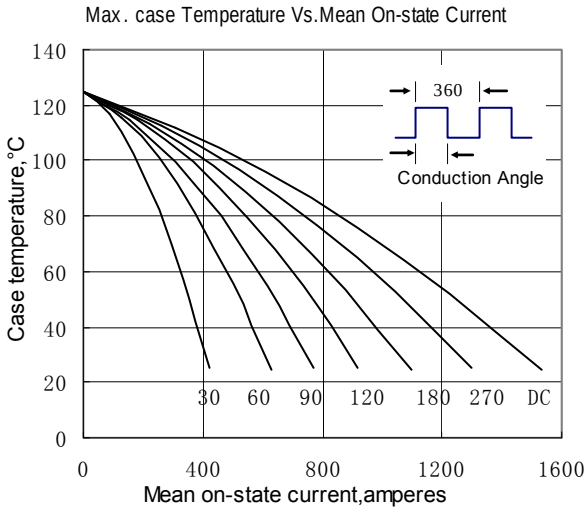


Fig.6

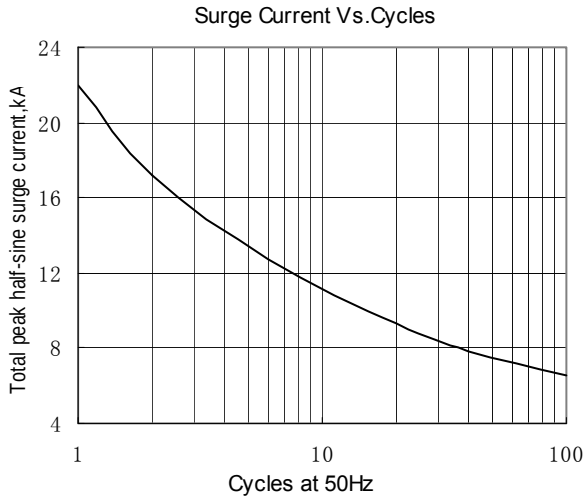


Fig.7

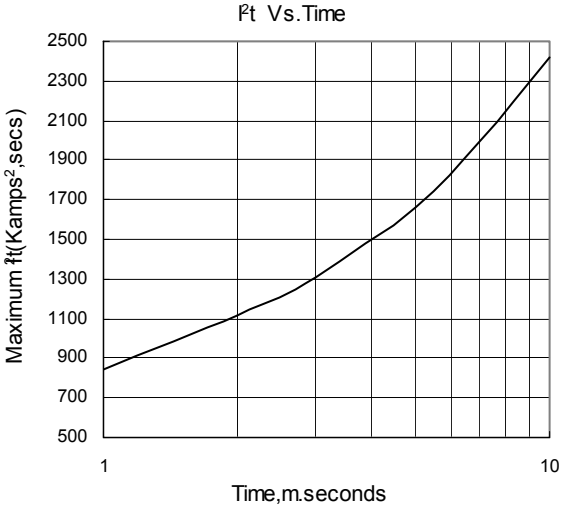


Fig.8

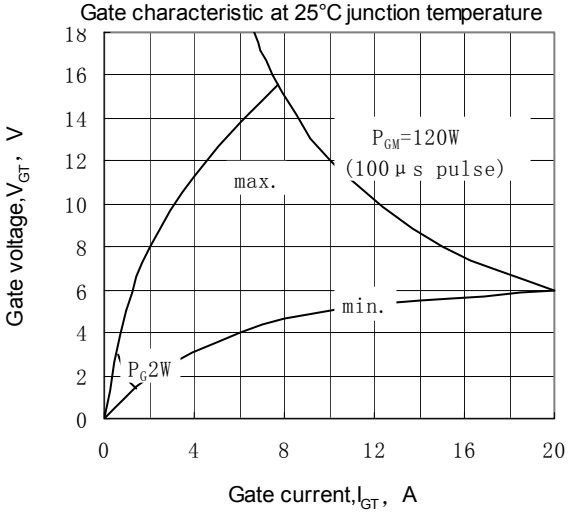


Fig.9

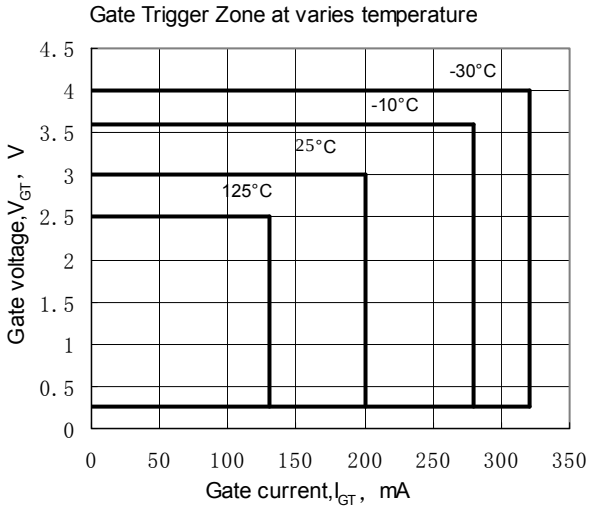
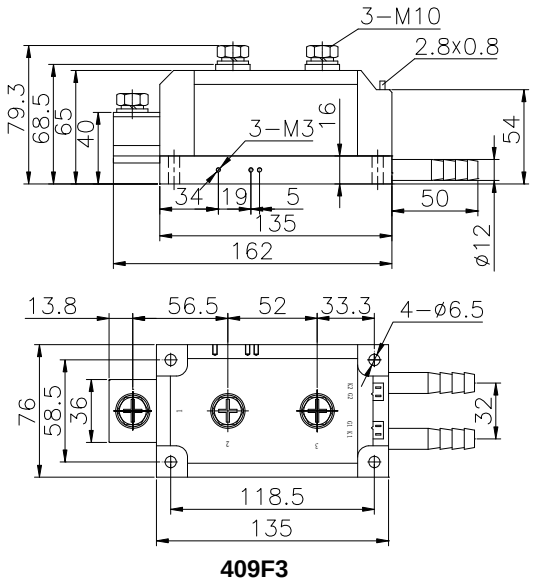


Fig.10

Outline:



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