

MFC800 MFA800 MFK800 MFX800

Thyristor/Diode Modules

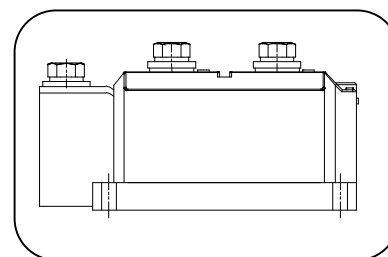
Features:

- n Isolated mounting base 2500V~
- n Pressure contact technology with
Increased power cycling capability
- n Space and weight savings

Typical Applications:

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

$I_{T(AV)}$	800A
V_{DRM}/V_{RRM}	600~1800V
I_{TSM}	16 KA
I^2t	1280 10³A²S



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			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 $V_{DSM}&V_{RSM}=V_{DRM}&V_{RRM}+200V$	125	600		1800	V
I_{DRM} I_{RRM}	Repetitive peak current	$V_{DM}=V_{DRM}$ $V_{RM}=V_{RRM}$	125			50	mA
I_{TSM}	Surge on-state current	10ms half sine wave	125			16.0	KA
I^2t	I ² T for fusing coordination	$V_R=0.6V_{RRM}$				1280	A ² s*10 ³
V_{TO}	Threshold voltage		125			0.80	V
r_T	On-state slop resistance					0.42	mW
V_{TM}	Peak on-state voltage	$I_{TM}=2400A$	25			1.86	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	$I_{TM}=1600A$, Gate source 1.5A $t_r \leq 0.5\mu s$ 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				0.054	°C /W
V_{iso}	Isolation voltage	50Hz, R.M.S, t=1min, I _{iso} :1mA(MAX)		2500			V
F_m	Thermal connection torque (M12)				12		N·m
	Mounting torque (M8)				8		N·m
T_{stg}	Stored temperature			-40		125	°C
W_t	Weight				3500		g
Outline	410F3						

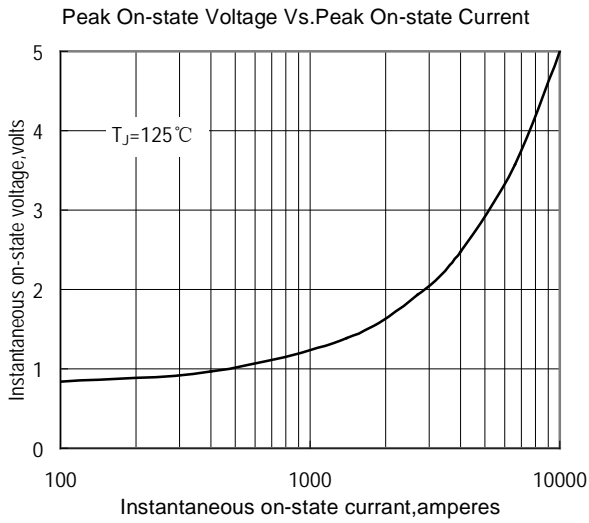


Fig.1

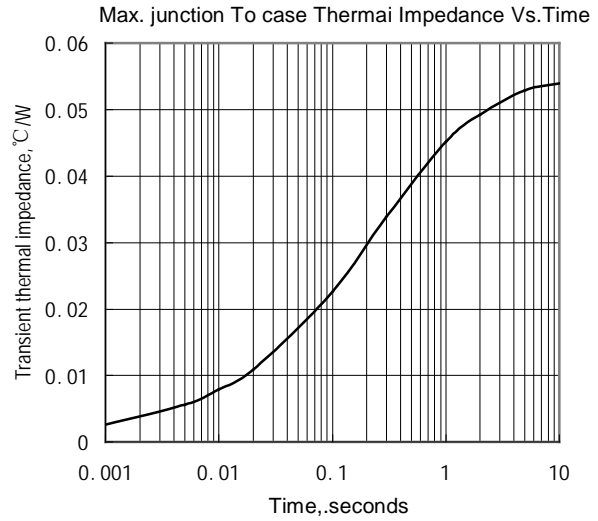


Fig.2

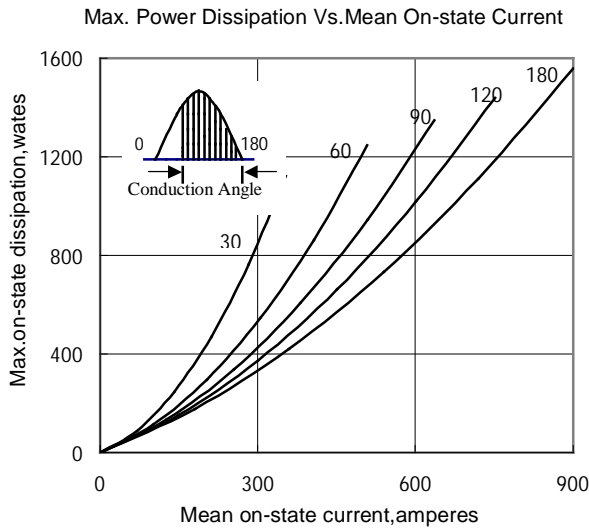


Fig.3

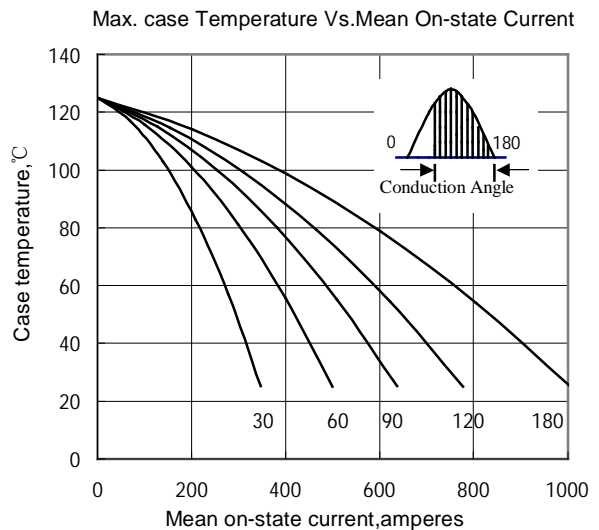


Fig.4

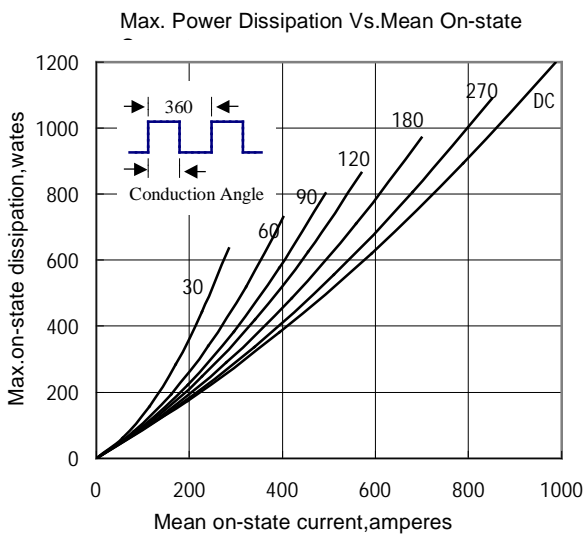


Fig.5

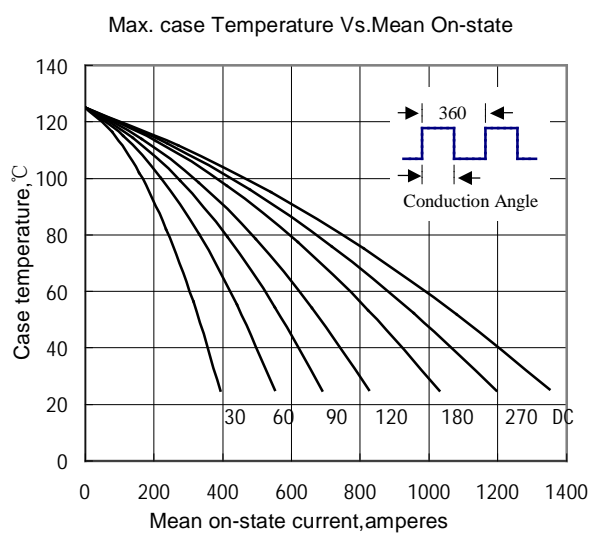


Fig.6

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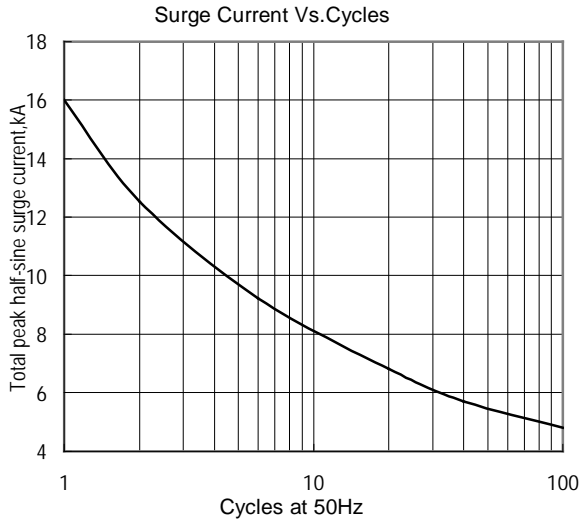


Fig.7

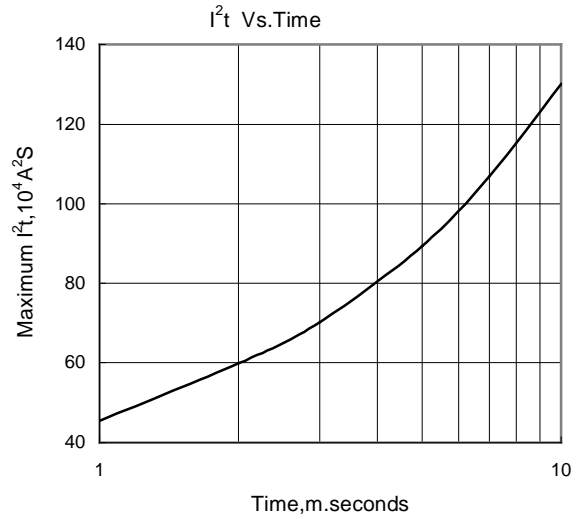


Fig.8

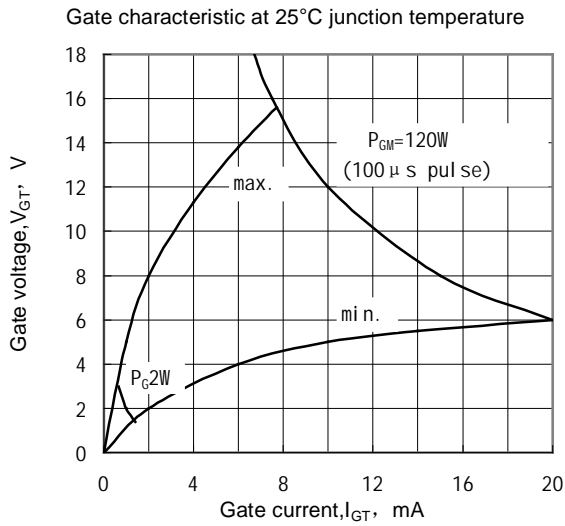


Fig.9

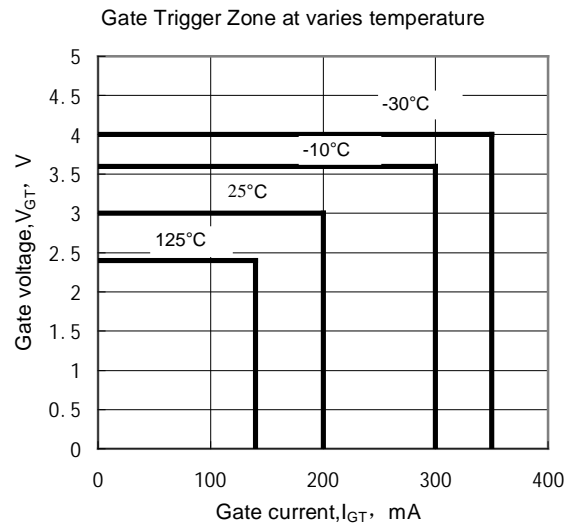


Fig.10

Outline:

