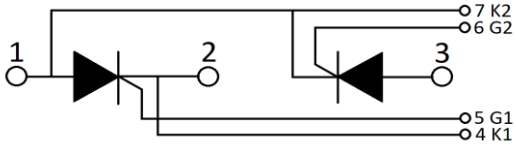
MRT800.16-410F3

Thyristors module

Features:

- Pressure contact technology with increased power cycling capability
- Glass passivated chip
- Simple mounting
- UL recognized, file no. E312789



Typical applications:

- Power converters
- Lighting control
- DC motor control and drives
- Heat and temperature control

Symbol	Characteristcs	Test Conditions	Value			Unit
			Min	Typ	Max	
$V_{RSM/DSM}$	Non-repetitive reverse/forward blocking voltage	Tj = 25°C			1700	V
$V_{RRM/DRM}$	Repetitive reverse/forward blocking voltage	Tj = 25°C			1600	V
$I_{T(AV)}$	Mean on-state current	180° half sine wave 50Hz T_c = 85 °C			800	A
$I_{T(RMS)}$	RMS on-state current				1256	A
I_{RRM} I_{DRM}	Repetitive peak current	at V_{DRM}/V_{RRM} Tj = 125°C			45	mA
I_{TSM}	Surge non repetitive current	10ms half sine wave V_R = 60% V_{RRM} Tj = 125°C			22	kA
I^2t	I^2t for fusing coordination				2420	kA^2s
V_{TO}	Threshold voltage	Tj = 125°C			0.80	V
r_T	On-state slope resistance	Tj = 125°C			0.20	mΩ
V_{TM}	Peak on-state voltage	T=25°C ; I_T=2400A			2.00	V
dv/dt	Critical rate of rise of off-state voltage	V_{DM} = 67% V_{DRM}, Tj = 125°C, linear voltage rise			1000	V/µs
di/dt	Critical rate of rise of off-state current	Tj = 125°C, Gate source 1,5A, I_{TM} = 500A, Tr < 0,5µs Repetitive			200	A/µs
I_{GT}	Gate trigger current	V_A = 12V, I_A = 1A, 'Tj = 25 °C	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}, Tj = 125°C	0.2			V
$R_{th(j-c)}$	Thermal resistance junction to case	Single side cooled per chip			0.042	°C/W
$R_{th(c-s)}$	Thermal resistance case to sink	Single side cooled per chip			0.020	°C/W
V_{ISO}	Isolation voltage	50Hz, RMS, t = 1min, I_{ISO} : 1mA (MAX)	3000			V
F_M	Mounting torque - copper plate (M8)			12.0		N·m
	Mounting torque - terminal (M12)			14.0		N·m
T_{stg}	Storage Temperature		-40		125	°C
T_j	Operating Temperature		-40		125	°C
W_t	Weight			3360		g
Outline	410F3					

MRT800.16-410F3

On-state voltage Vs.peak on-state current

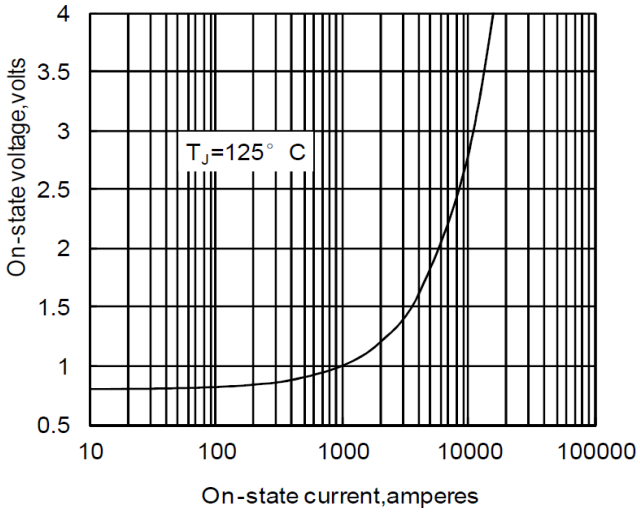


Fig1

Max. junction to case thermal impedance Vs.time

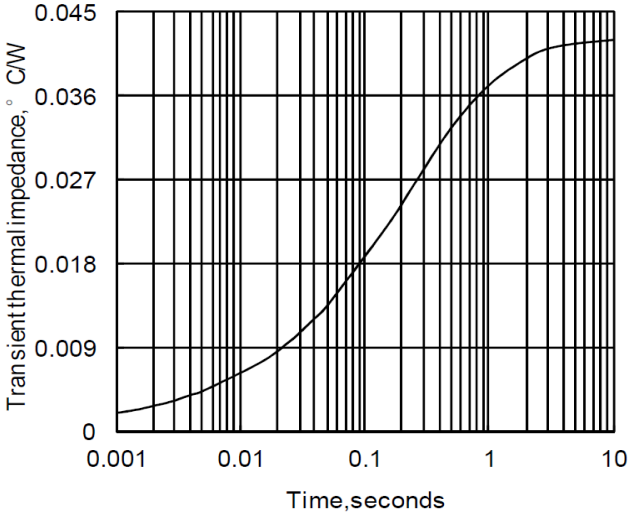


Fig2

Max. power dissipation Vs.mean on-state current

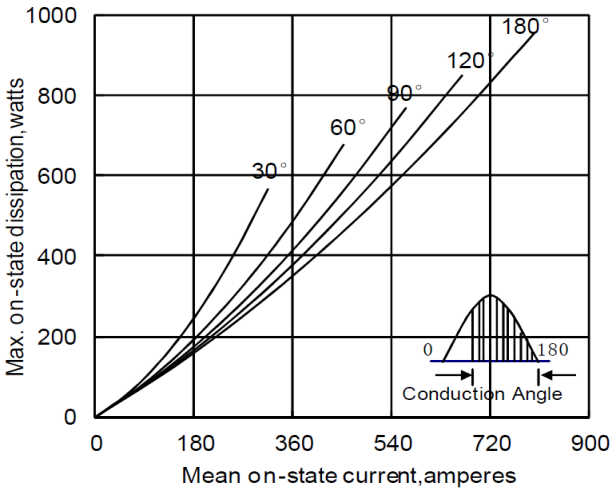


Fig3

Max.case temperature Vs.mean on-state current

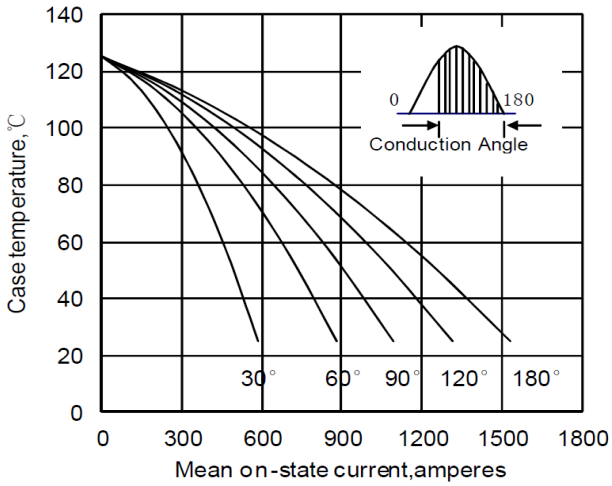


Fig4

Max. power dissipation Vs.mean on-state current

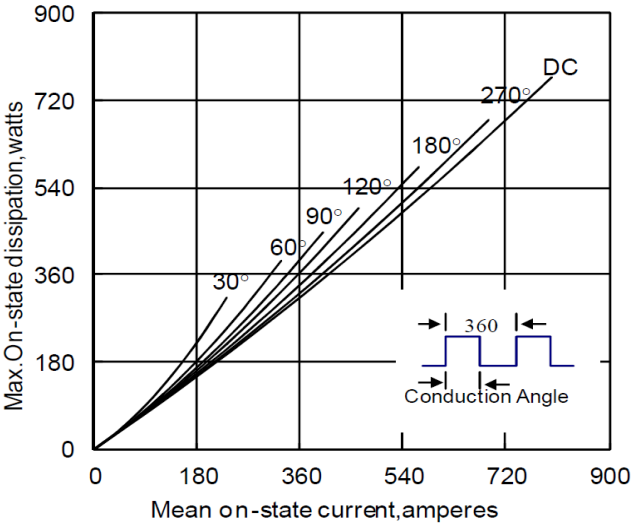


Fig5

Max. case temperature Vs.mean on-state current

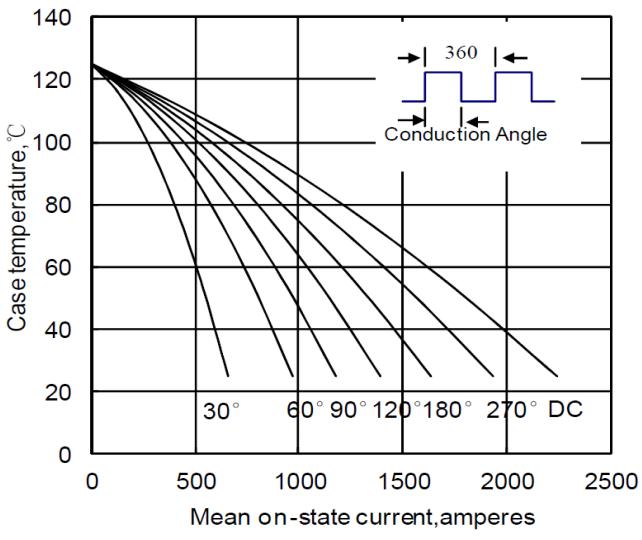


Fig6

MRT800.16-410F3

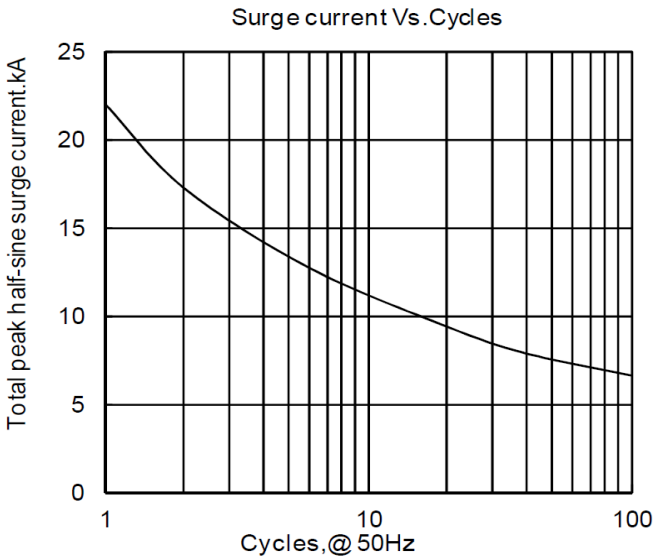


Fig7

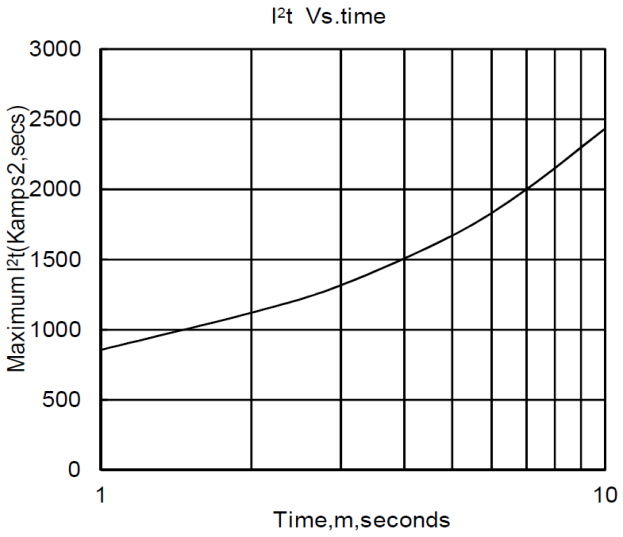


Fig8

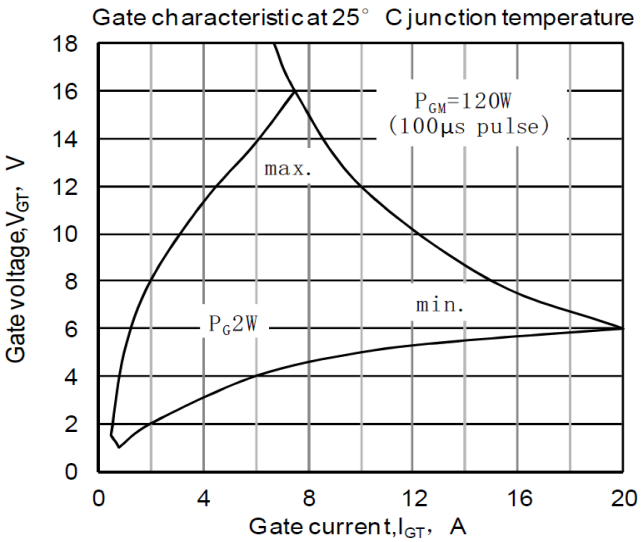


Fig9

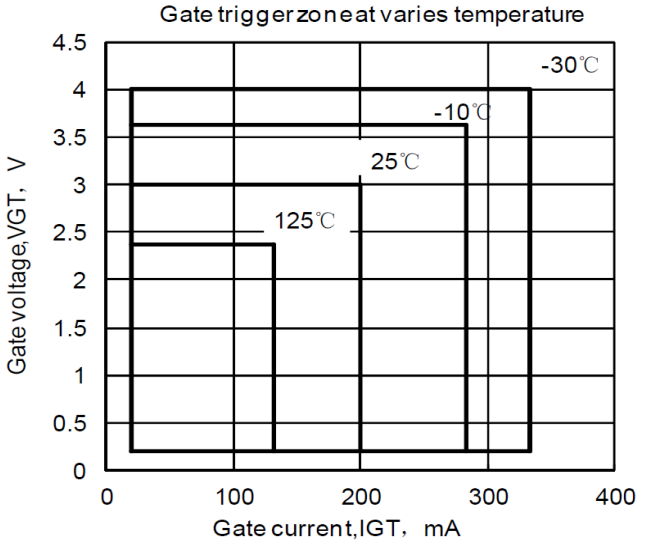
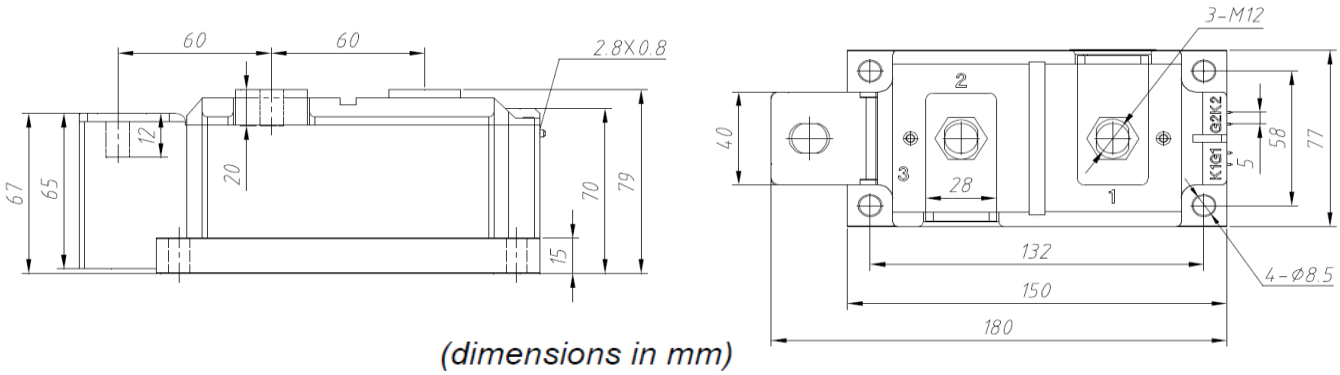


Fig10



(dimensions in mm)

S.CO.M.E.S. Srl
Via Enrico Mattei, 6/8 - 26283 - Castiglione d'Adda (LO) - Italy
Phone: +39 0377 901243 Fax: +39 0377 900206