



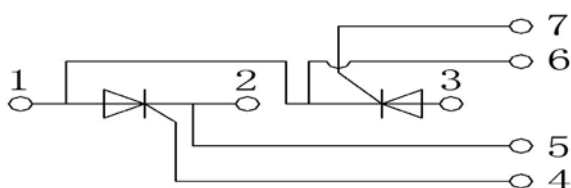
Thyristor Modules

V_{RRM} / V_{DRM} 800 to 1800V
I_{TAV} 275A

Applications

- Power Converters
- Lighting Control
- DC Motor Control and Drives
- Heat and temperature control

Circuit



Features

- International standard package
- High Surge Capability
- Simple Mounting

Module Type

TYPE	V _{RRM}	V _{RSM}
MT275C08T3	800V	900V
MT275C12T3	1200V	1300V
MT275C16T3	1600V	1700V
MT275C18T3	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
I _{TAV}	Sine 180°; T _c =85°C	275	A
I _{TSM}	T _{VJ} =45°C t=10ms, sine	8400	A
i ² t	T _{VJ} =45°C t=10ms, sine	352800	A ² s
Visol	a.c.50HZ;r.m.s.;1min	2500	V
T _{vj}		-40 to 125	°C
T _{stg}		-40 to 125	°C
di/dt	T _{VJ} = T _{VJM} , 2/3V _{DRM} , I _G =500mA Tr<0.5us, tp>6us	150	A/us
dv/dt	T _J = T _{VJM} , 2/3V _{DRM} , linear voltage rise	1000	V/us
Weight	Module(Approximately)	600	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	per thyristor	0.13	°C/W
R _{th(c-s)}	per module	0.03	°C/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V_{TM}	$T=25^{\circ}\text{C}$ $I_{TM}=750\text{A}$			1.6	V
I_{RRM}/I_{DRM}	$T_{VJ}=T_{VJM}$, $V_R=V_{RRM}$, $V_D=V_{DRM}$			30	mA
P_{GM}			12		W
I_{GM}			3		A
V_{GT}	$T_{VJ}=25^{\circ}\text{C}$, $V_D=6\text{V}$			2	V
I_{GT}	$T_{VJ}=25^{\circ}\text{C}$, $V_D=6\text{V}$			150	mA
I_L	$T_{VJ}=25^{\circ}\text{C}$, $R_G=33\ \Omega$		400		mA
I_H	$T_{VJ}=25^{\circ}\text{C}$, $V_D=6\text{V}$		200		mA

Performance Curves

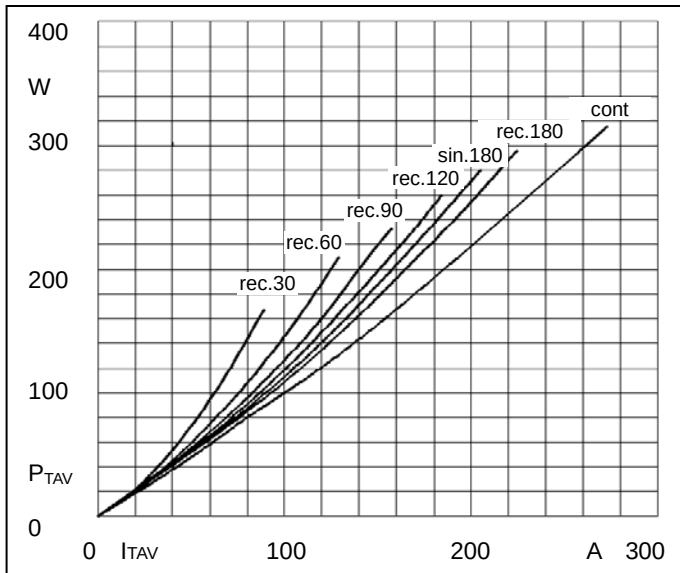


Fig1. Power dissipation

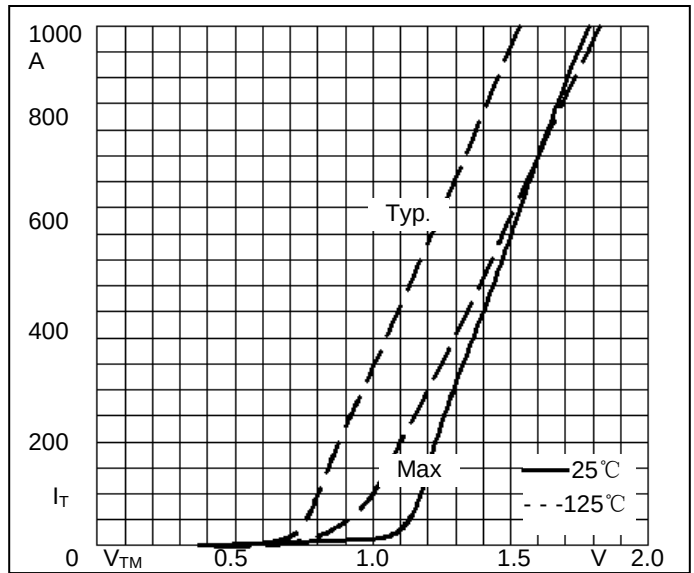


Fig2. Forward Characteristics

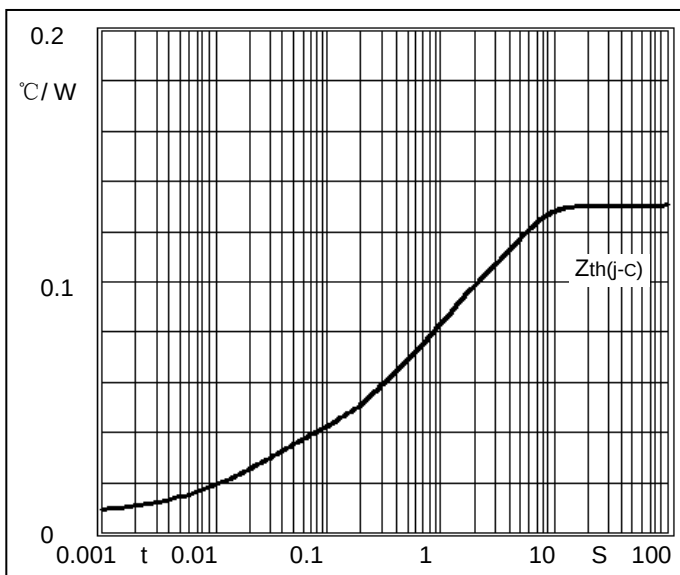


Fig3. Transient thermal impedance

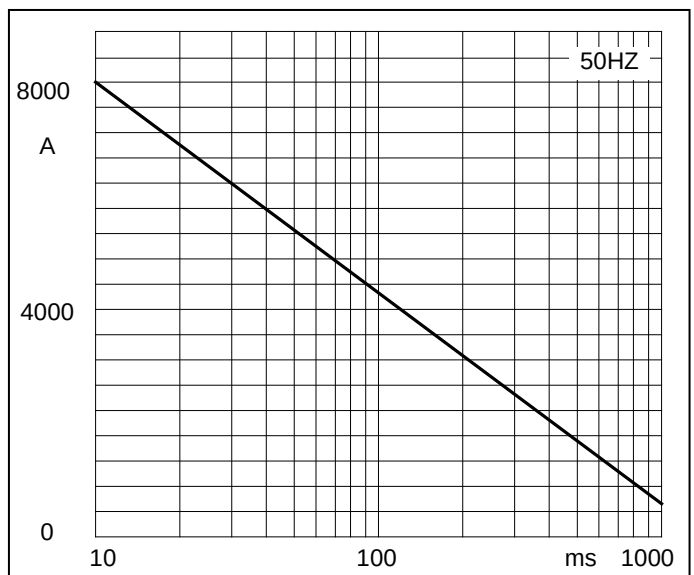
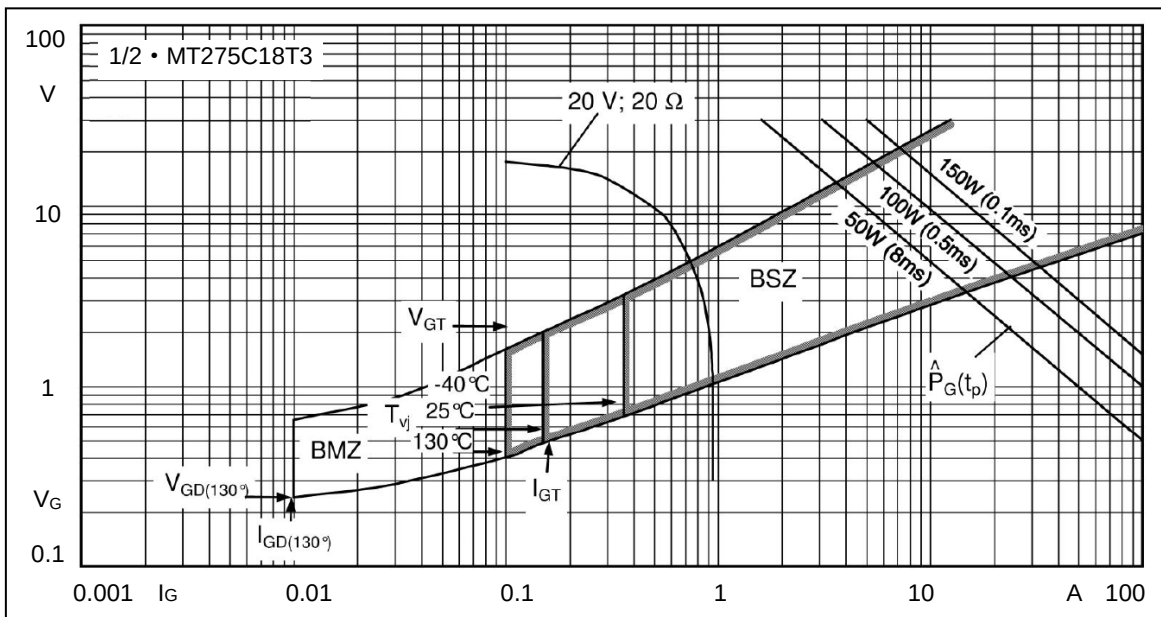
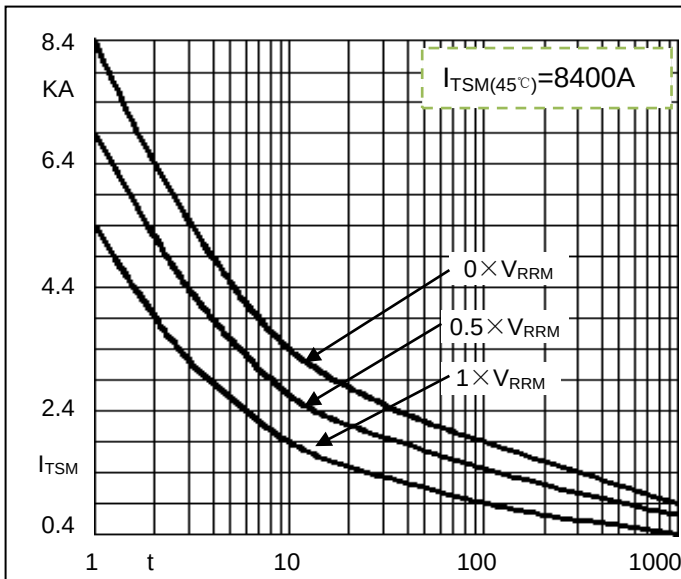
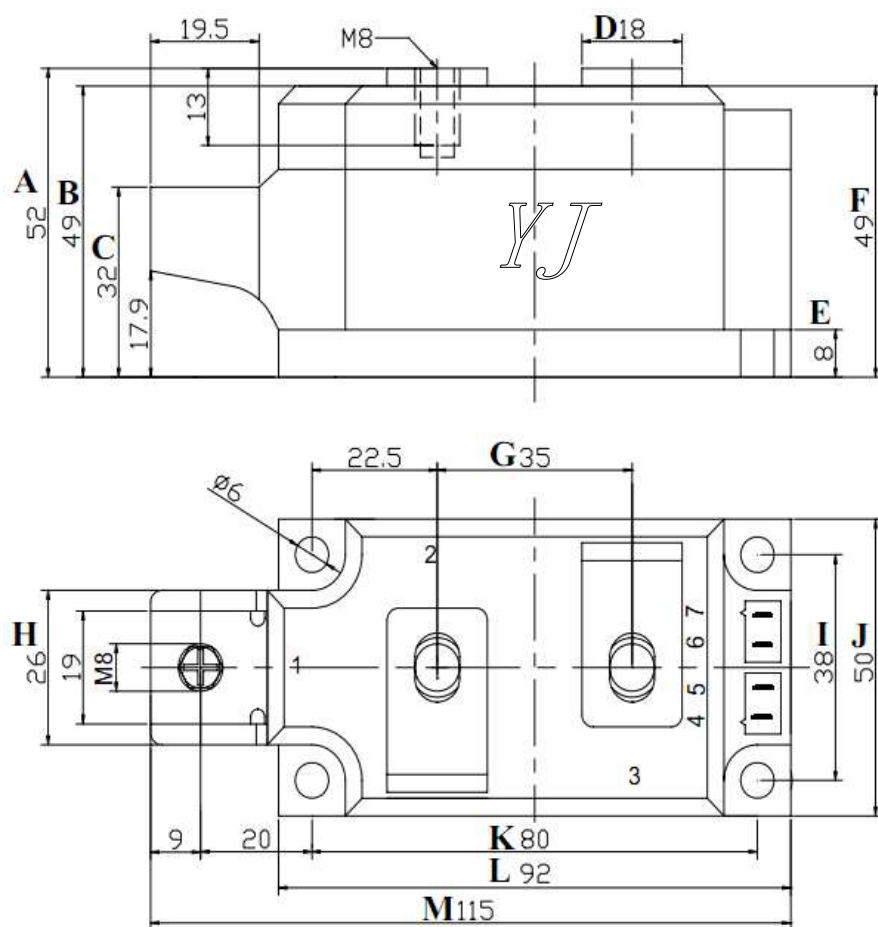


Fig4. Max Non-Repetitive Forward Surge Current



Package Outline Information

CASE: T3



Dimensions in mm