



Thyristor Modules

VRRM / VDRM 800 to 1800V
ITAV 275A

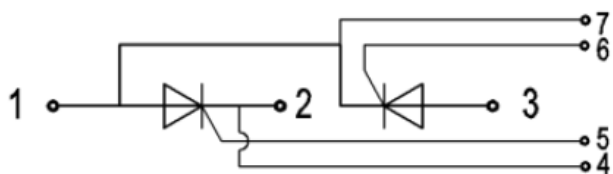
Applications

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

Features

- International standard package
- High Surge Capability
- Simple Mounting

Circuit



Module Type

TYPE	VRRM	VRSM
MT275C08T3	800V	900V
MT275C12T3	1200V	1300V
MT275C16T3	1600V	1700V
MT275C18T3	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
I_{TAV}	Sine 180°; $T_c=85^{\circ}\text{C}$	275	A
I_{TSM}	$T_{VJ}=45^{\circ}\text{C}$ $t=10\text{ms}$, sine	8000	A
i^2t	$T_{VJ}=45^{\circ}\text{C}$ $t=10\text{ms}$, sine	320000	A^2s
V_{isol}	a.c.50HZ;r.m.s.;1min	2500	V
T_{vj}		-40 to 125	$^{\circ}\text{C}$
T_{stg}		-40 to 125	$^{\circ}\text{C}$
di/dt	$T_{VJ}=T_{VJM}$, $2/3V_{DRM}$, $I_G=500\text{mA}$ $Tr<0.5\mu\text{s}$, $tp>6\mu\text{s}$	150	A/ μs
dv/dt	$T_J=T_{VJM}$, $2/3V_{DRM}$, linear voltage rise	1000	V/ μs
Weight	Module(Approximately)	600	g

Thermal Characteristics

Symbol	Conditions	Values	Units
$R_{th(j-c)}$	Cont.;per module	0.13	$^{\circ}\text{C/W}$
$R_{th(c-s)}$	per module	0.03	$^{\circ}\text{C/W}$

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

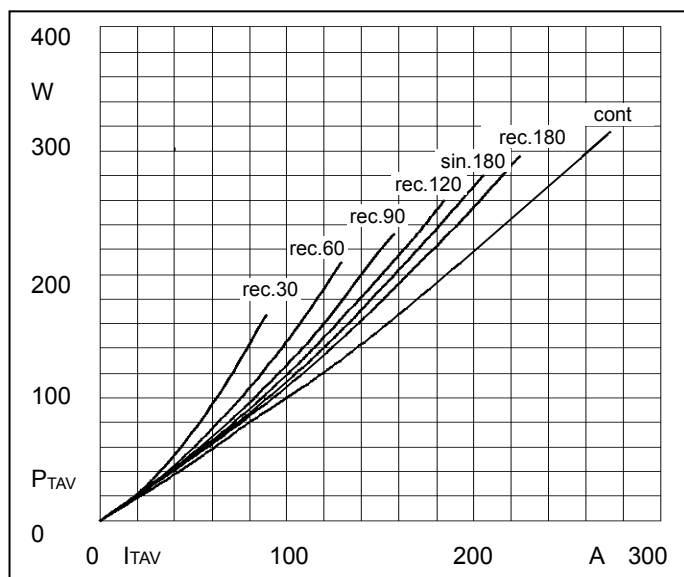


Fig1. Power dissipation

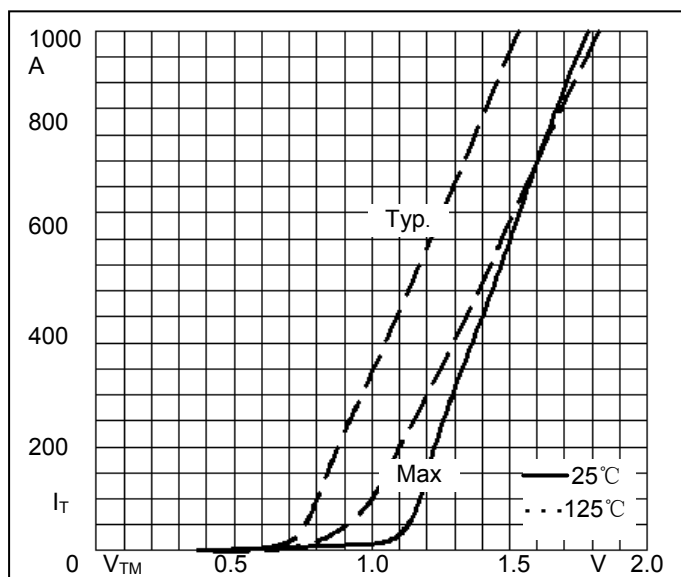


Fig2. Forward Characteristics

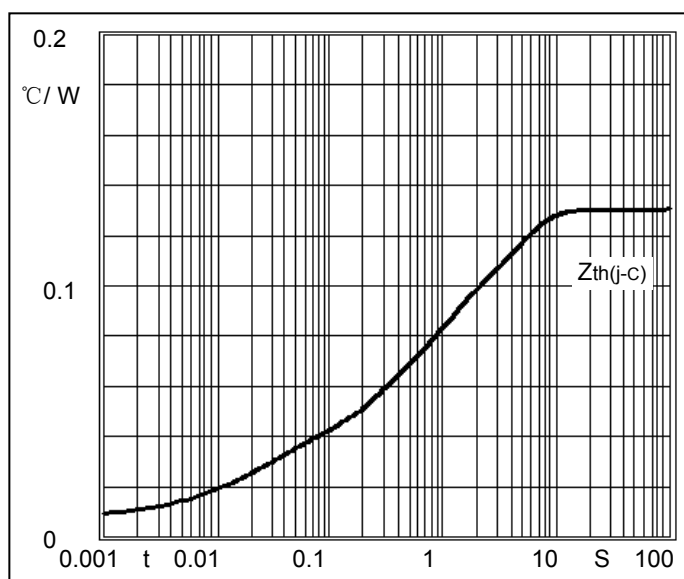


Fig3. Transient thermal impedance

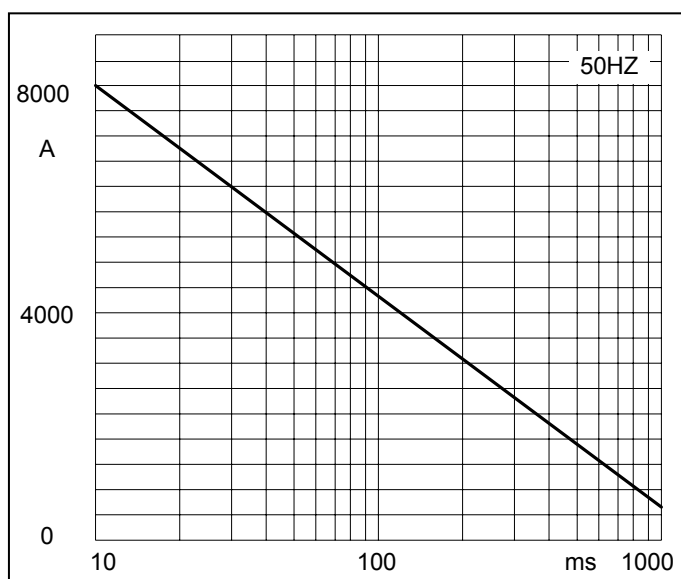


Fig4. Max Non-Repetitive Forward Surge Current

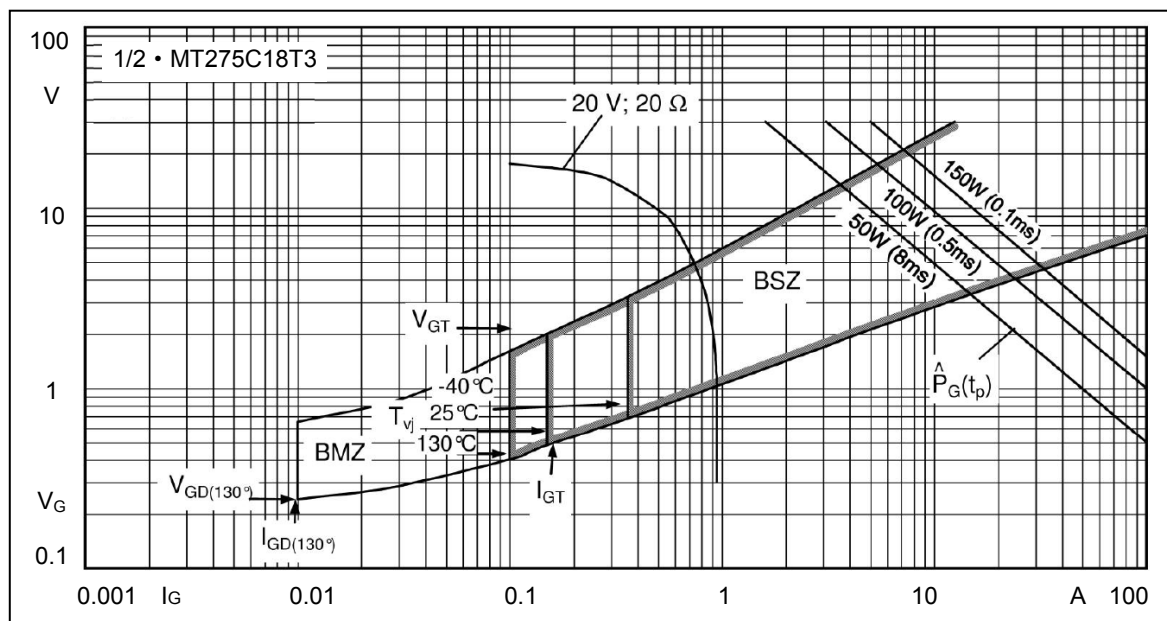
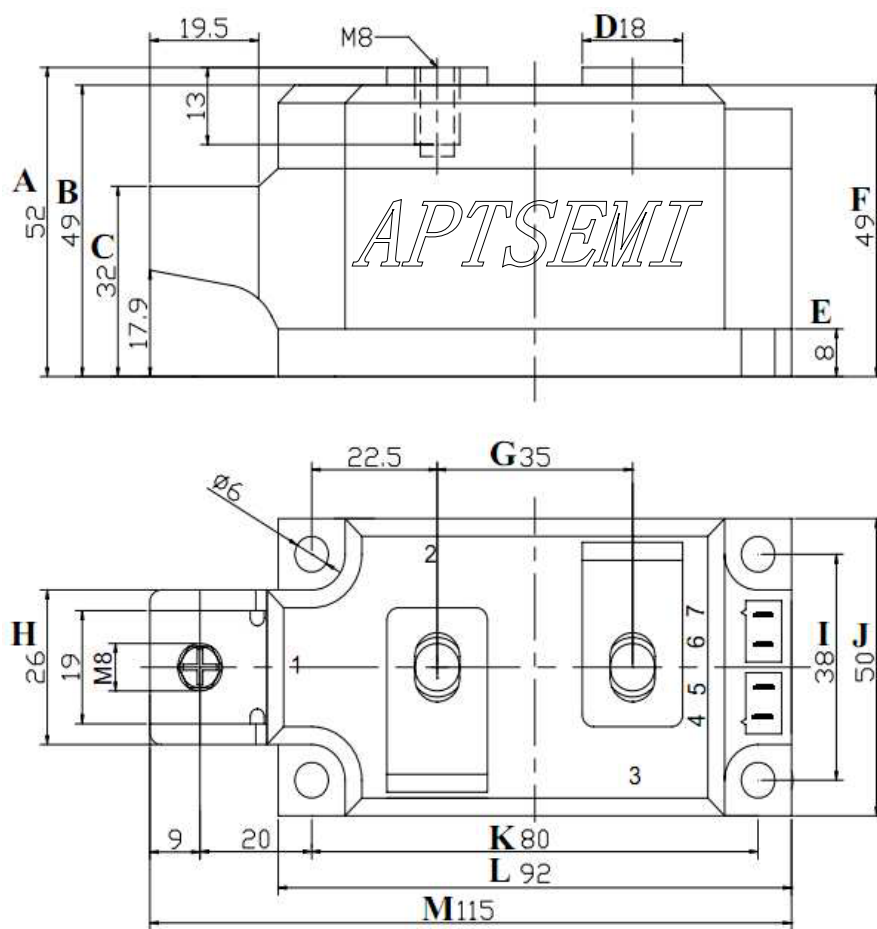


Fig5. Gate trigger Characteristics

Package Outline Information

CASE: T3



Dimensions in mm