



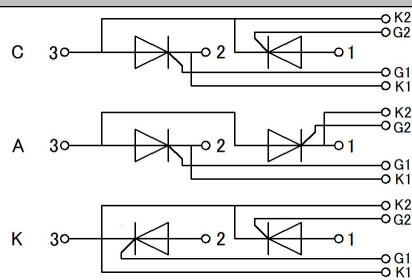
Thyristor Modules

VRRM / VDRM 1200 to 1600V
ITAV 350A

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			VDRM/VRRM	VDSM/VRSM
MT350C12T5	MT350A12T5	MT350K12T5	1200V	1400V
MT350C14T5	MT350A14T5	MT350K14T5	1400V	1600V
MT350C16T5	MT350A16T5	MT350K16T5	1600V	1800V

Maximum Ratings

Symbol	Conditions	Values	Units
ITAV	Sine 180°;Tc=85℃	350	A
ITSM	Tvj=125℃ t=10ms, sine	11000	A
i²t	Tvj=125℃ t=10ms, sine	605000	A²s
Visol	a.c.50HZ;r.m.s.;1min,Iiso :2mA(MAX)	2500	V
Tvj		-40 to 125	℃
Tstg		-40 to 125	℃
Mt	To terminals(M10)	12±15%	Nm
Ms	To heatsink(M6)	6±15%	Nm
di/dt	Tj=TvjM ,IGM=1.5A tr≤1.5s	100	A/us
dv/dt	Tj= TvjM ,2/3VDRM, linear voltage rise	1000	V/us
Weight	Module(Approximately)	1580	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	per chip	0.073	℃/W
Rth(c-h)	per module	0.04	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V_{TM}	$T=25^{\circ}\text{C}$ $I_{TM}=1050\text{A}$			1.45	V
I_{RRM}/I_{DRM}	$T_{VJ}=T_{VJM}$, $V_R=V_{RRM}$, $V_D=V_{DRM}$			45	mA
V_{GT}	$T_{VJ}=25^{\circ}\text{C}$, $V_D=12\text{V}$, $R_G=3\ \Omega$	0.8		2.5	V
I_{GT}	$T_{VJ}=25^{\circ}\text{C}$, $V_D=12\text{V}$, $R_G=3\ \Omega$	30		150	mA
I_L	$T_{VJ}=25^{\circ}\text{C}$, $V_D=12\text{V}$, $R_G=3\ \Omega$			1000	mA
I_H	$T_{VJ}=25^{\circ}\text{C}$, $V_D=12\text{V}$, $R_G=3\ \Omega$	20		150	mA

Performance Curves

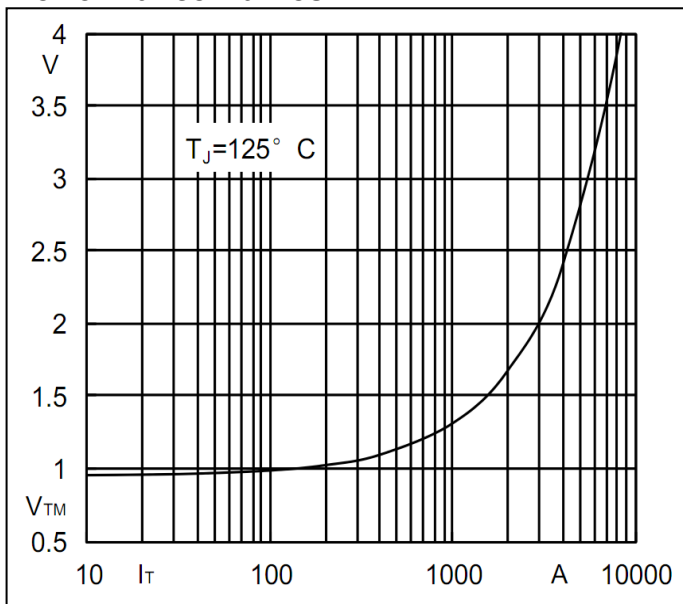


Fig1. Peak On-state Voltage Vs Peak On-state

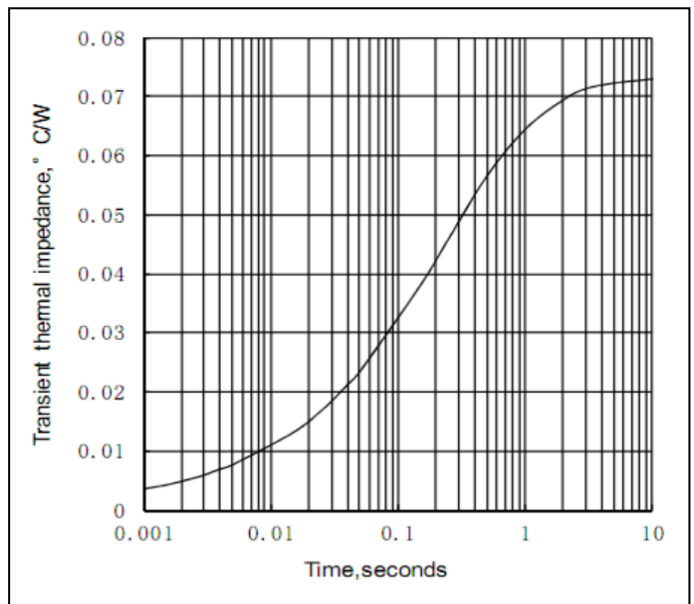


Fig2. Max. junction To case Thermal Impedance Vs Time

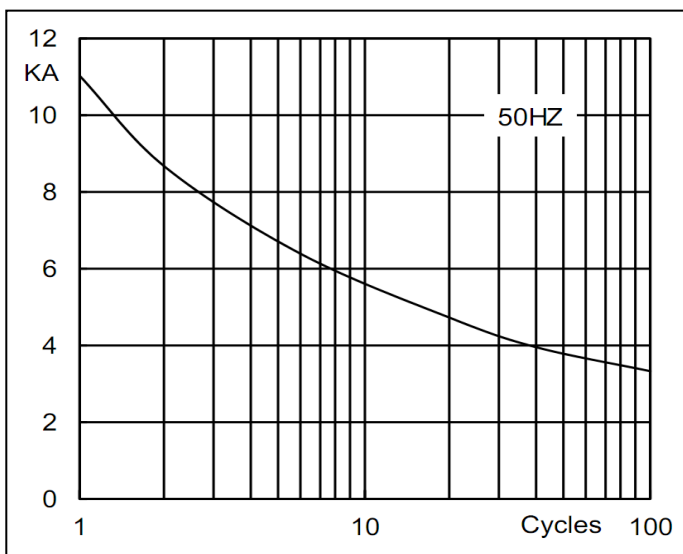


Fig3. Surge Current Vs Cycles

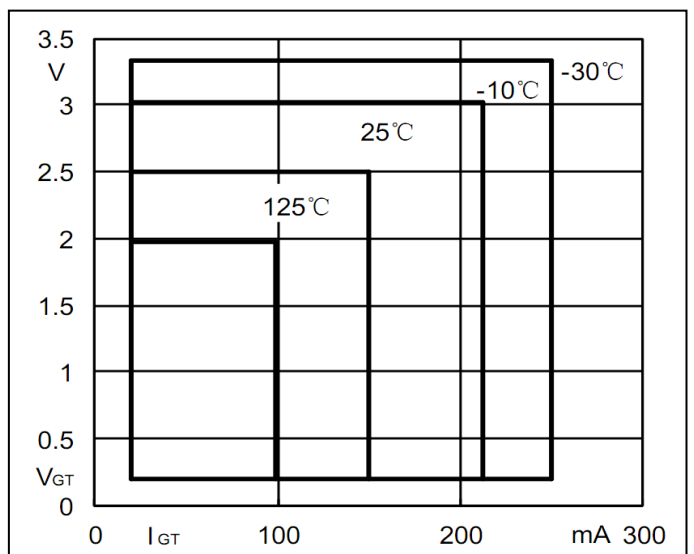


Fig4. Gate Trigger Zone at varies temperature

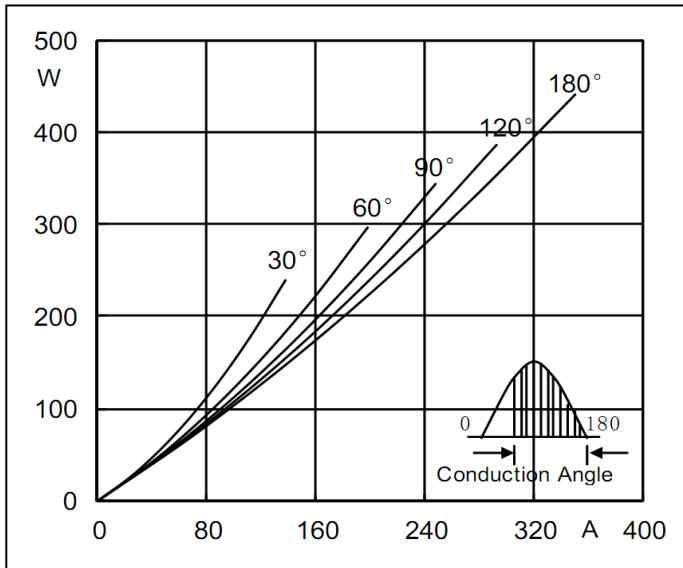


Fig5. Max. Power Dissipation Vs Mean On-state Current

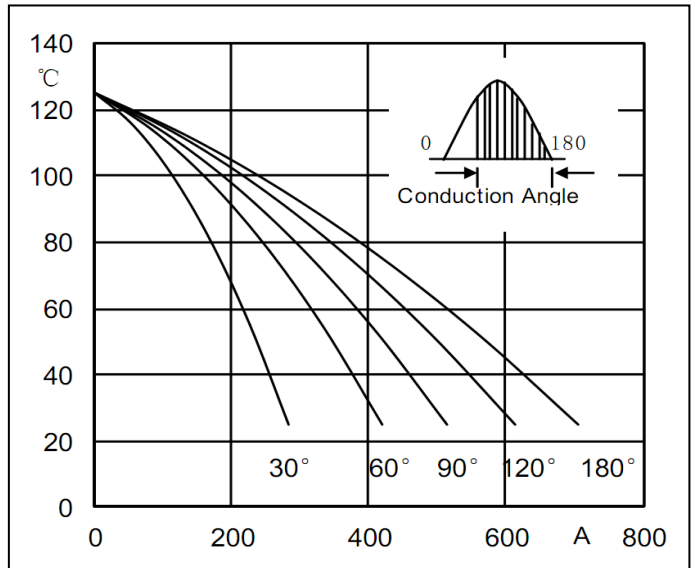
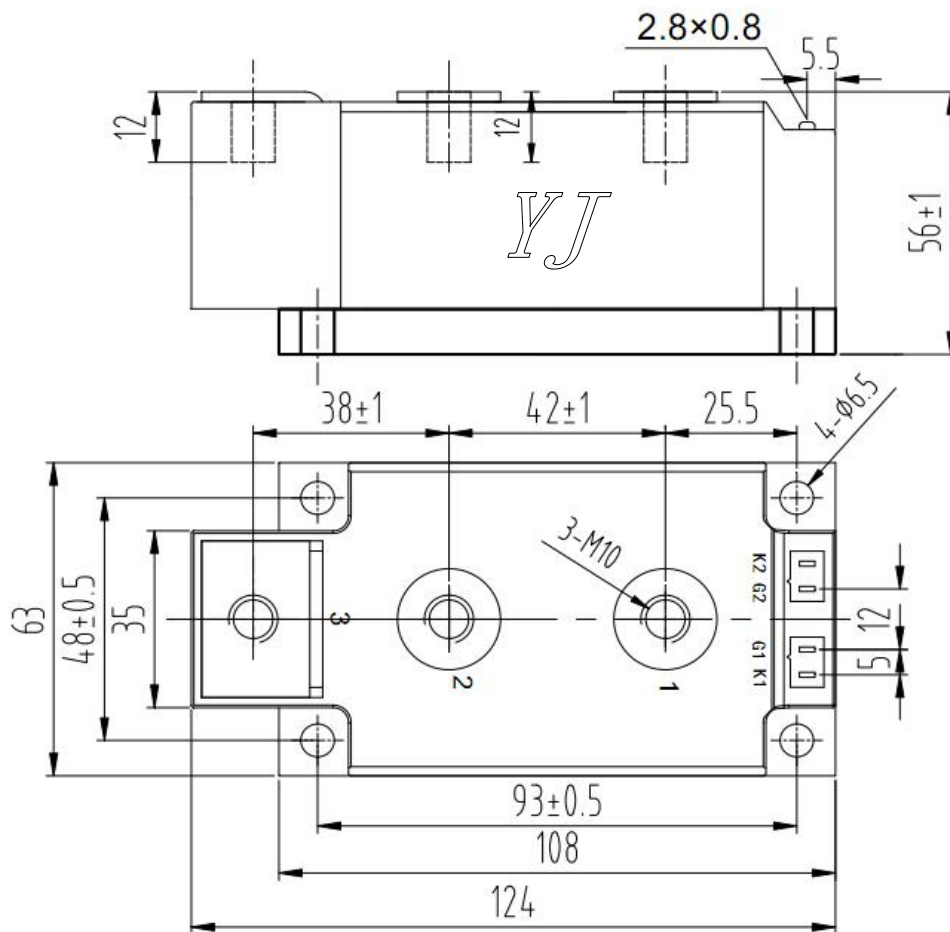


Fig6. Max case Temperature Vs Mean On-state Current

Package Outline Information

CASE: T5



Dimensions in mm