

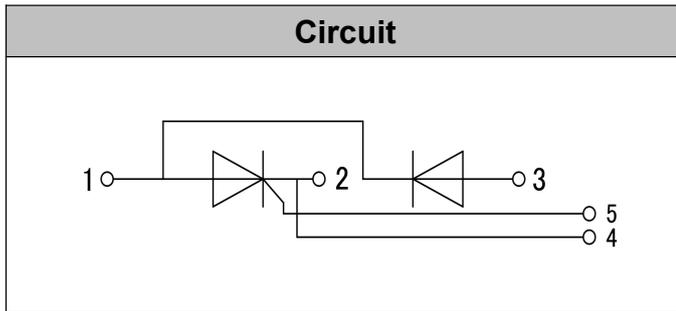


Thyristor/Diode Modules

VRRM / VDRM 1200 to 1600V
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

Module Type

TYPE	VDRM/VRRM	VDSM/VRSM
MT275CB12T3	1200V	1400V
MT275CB14T3	1400V	1600V
MT275CB16T3	1600V	1800V

Maximum Ratings

Symbol	Conditions	Values	Units
ITAV	Sine 180°;Tc=85°C	275	A
ITSM	Tvj=125°C t=10ms, sine	9000	A
i²t	Tvj=125°C t=10ms, sine	405000	A²s
Visol	a.c.50HZ;r.m.s.;1min,Iiso :2mA(MAX)	2500	V
Tvj		-40 to 125	°C
Tstg		-40 to 125	°C
Mt	To terminals(M8)	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)	690	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	per chip	0.106	°C/W
Rth(c-h)	per module	0.04	°C/W



Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V_{TM}	$T=25^{\circ}C$ $I_{TM}=750A$			1.55	V
I_{RRM}/I_{DRM}	$T_{VJ}=T_{VJM}$, $V_R=V_{RRM}$, $V_D=V_{DRM}$			25	mA
V_{GT}	$T_{VJ}=25^{\circ}C$, $V_D=12V$, $R_G=3\Omega$	0.8		2.5	V
I_{GT}	$T_{VJ}=25^{\circ}C$, $V_D=12V$, $R_G=3\Omega$	30		150	mA
I_L	$T_{VJ}=25^{\circ}C$, $V_D=12V$, $R_G=3\Omega$			1000	mA
I_H	$T_{VJ}=25^{\circ}C$, $V_D=12V$, $R_G=3\Omega$	20		150	mA

Performance Curves

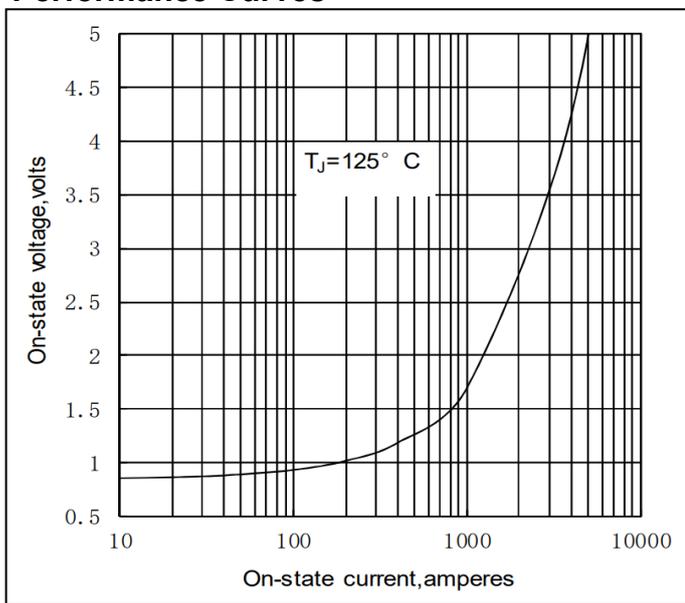


Fig1. Peak On-state Voltage Vs Peak On-state

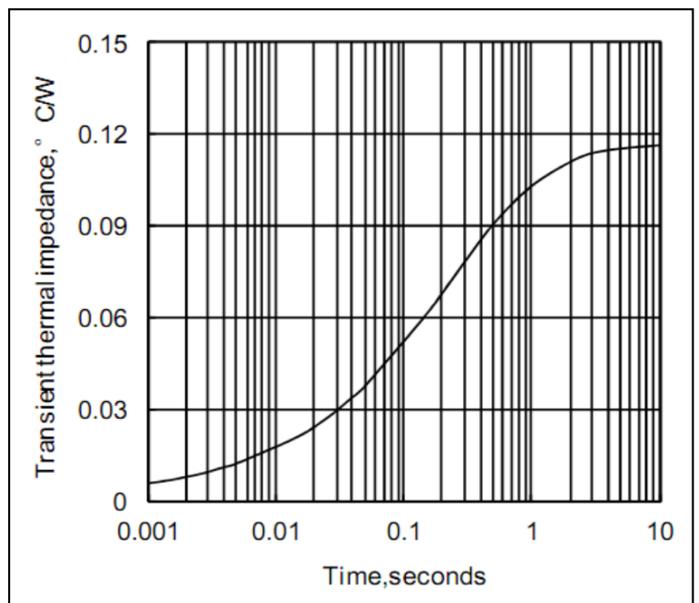


Fig2. Max. junction To case Thermal Impedance Vs Time

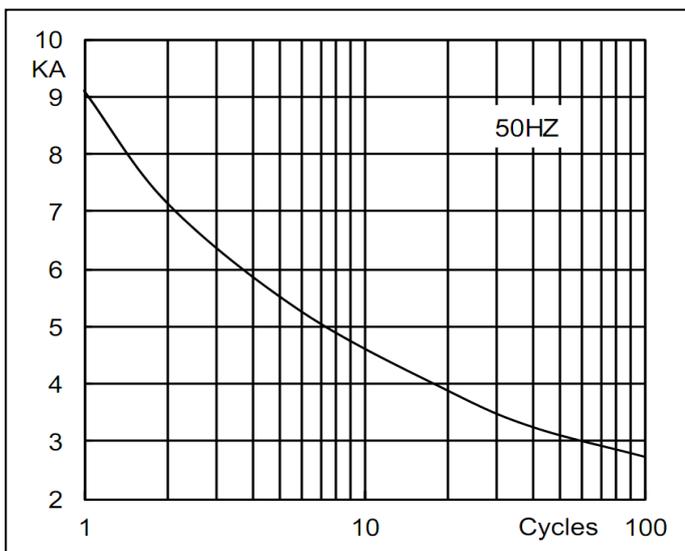


Fig3. Surge Current Vs Cycles

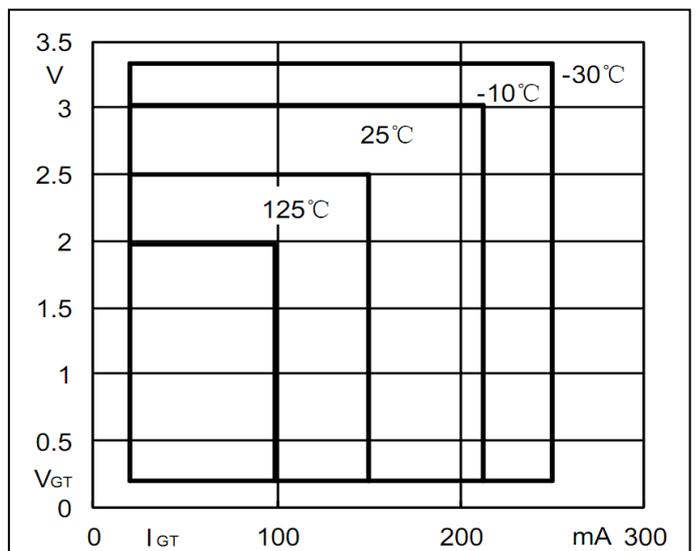


Fig4. Gate Trigger Zone at varies temperature

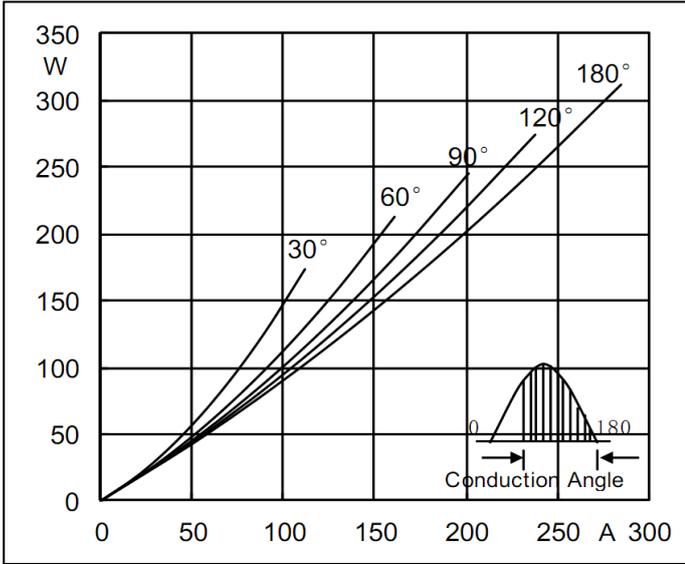


Fig5. Max. Power Dissipation Vs Mean On-state Current

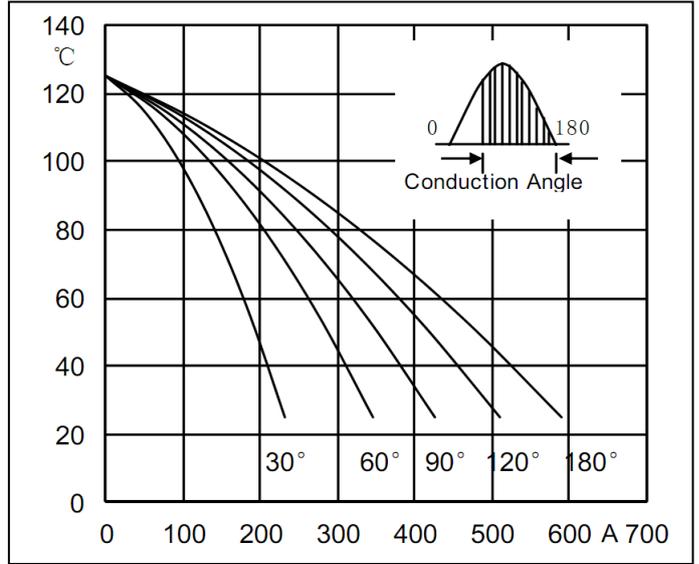


Fig6. Max case Temperature Vs Mean On-state Current

Package Outline Information

