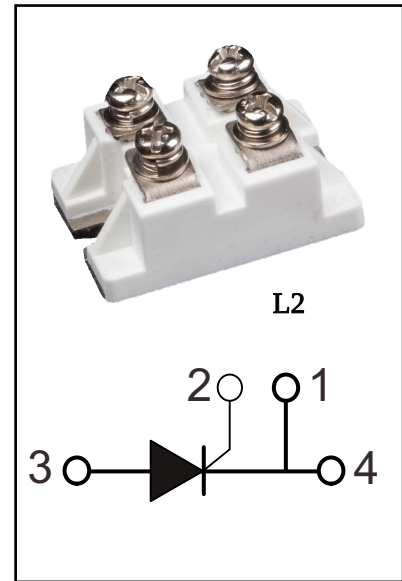


Thyristor

V_{RRM} / V_{DRM} 600 to 1600V
I_{FAV} / I_{TAV} 100A

Features

- Blocking voltage:600 to 1600V
- Bonding Process
- Isolated Module package



Maximum Ratings

Symbol	Item	Conditions	Values	Units
I _{TAV}	Average On-State Current	T _c =99 °C , Single Phase half wave 180° conduction	100	A
I _{TSM}	Surge On-State Current	TVJ=45°C t=10ms (50Hz), sine VR=0	2250	A
i ² t	Circuit Fusing Consideration		25000	A ² s
Visol	Isolation Breakdown Voltage(R.M.S)	a.c.50HZ;r.m.s.;1 min	2500	V
Tvj	Operating Junction Temperature		-40 to +125	°C
Tstg	Storage Temperature		-40 to +125	°C
Mt	Mounting Torque	To terminals(M5)	3±5%	Nm
Ms		To heatsink(M5)	3±5%	Nm
di/dt	Critical Rate of Rise of On-State Current	T _{VJ} =T _{VJM} , V _D =1/2V _{DRM} , I _G =100mA d _{IG} /d _t =0.1A/μs	150	A/μs
dv/dt	Critical Rate of Rise of Off-State Voltage, min.	T _J =T _{VJM} , V _D =2/3V _{DRM} , linear voltage rise	1500	V/μs

Electrical and Thermal Characteristics

Symbol	Item	Conditions	Values			Units
			Min.	Typ.	Max.	
V _{TM}	Peak On-State Voltage, max.	T=25°C I _T =300A			1.65	V
I _{RRM} /I _{DRM}	Repetitive Peak Reverse Current, max. / Repetitive Peak Off-State Current, max.	T _{VJ} =T _{VJM} , V _R =V _{RRM} , V _D =V _{DRM}			0.1	mA
V _{GT}	Gate Trigger Voltage, max.	T _{VJ} =25°C , V _D =12V			1.5	V
I _{GT}	Gate Trigger Current, max.	T _{VJ} =25°C , V _D =12V			80	mA
I _H	Gate Trigger Holding, max.	T _{VJ} =25°C , V _D =12V			160	mA
Rth(j-c)	Thermal Impedance, max.	Junction to Case			0.30	°C/W
Rth(c-s)	Thermal Impedance, max.	Case to Heatsink			0.10	°C/W

Performance Curves

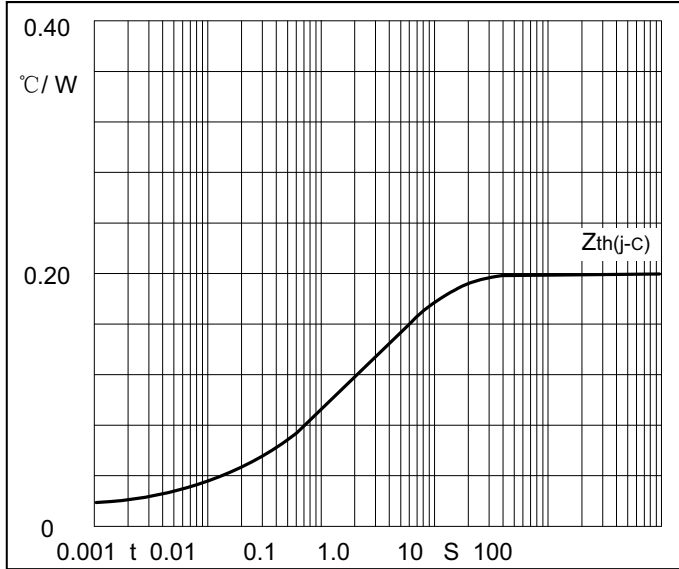


Fig1. Transient thermal impedance

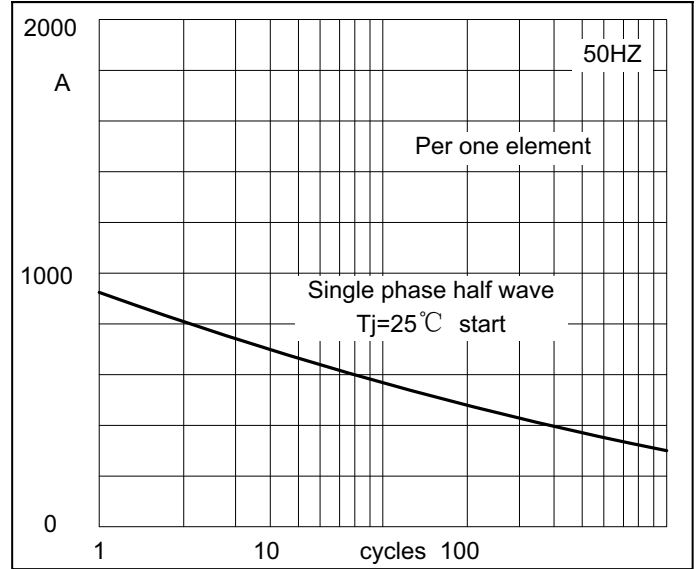


Fig2. Max Non-Repetitive Forward Surge Current

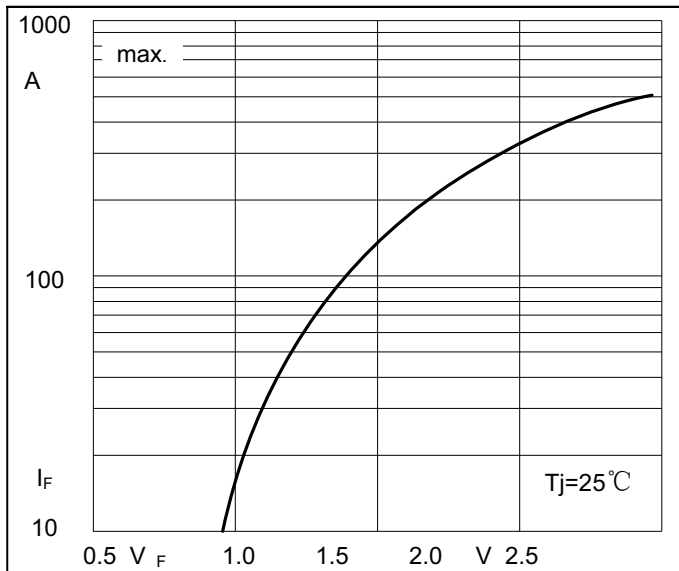


Fig3. Forward Characteristics

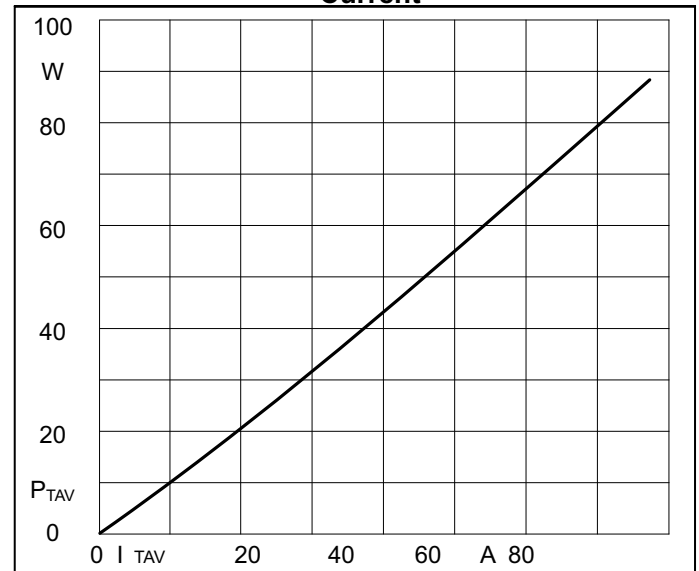


Fig4. SCR Power dissipation

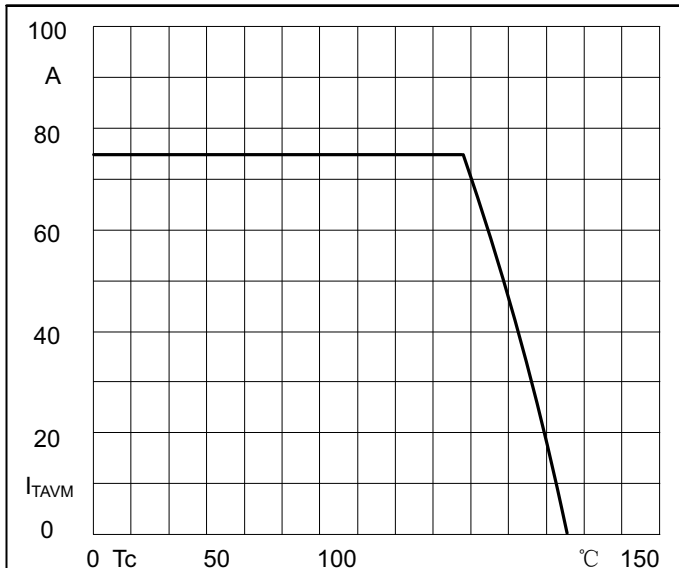


Fig5. SCR Forward Current Derating Curve

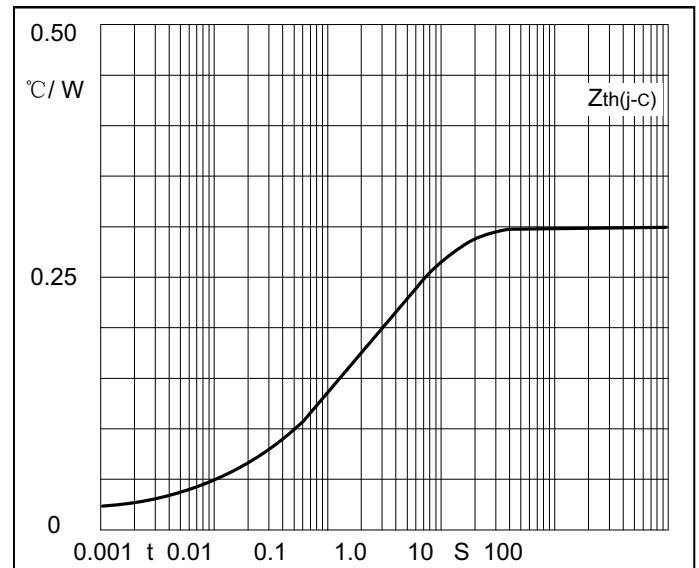


Fig6. SCR Transient thermal impedance

Performance Curves

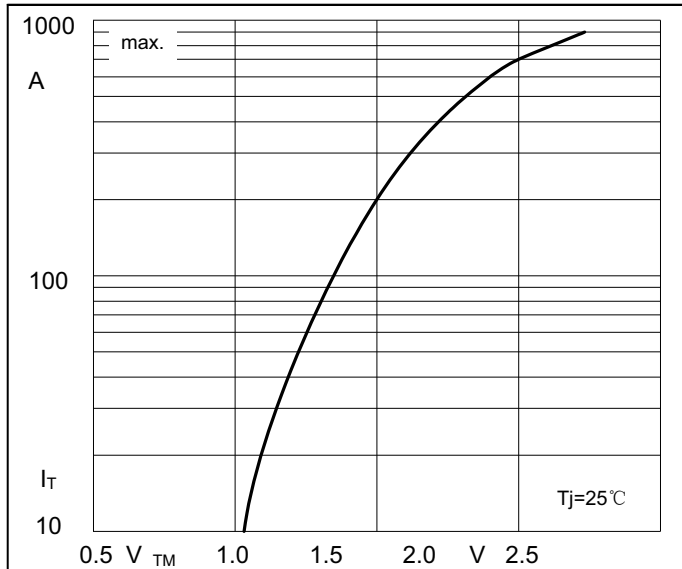


Fig7. SCR Forward Characteristics

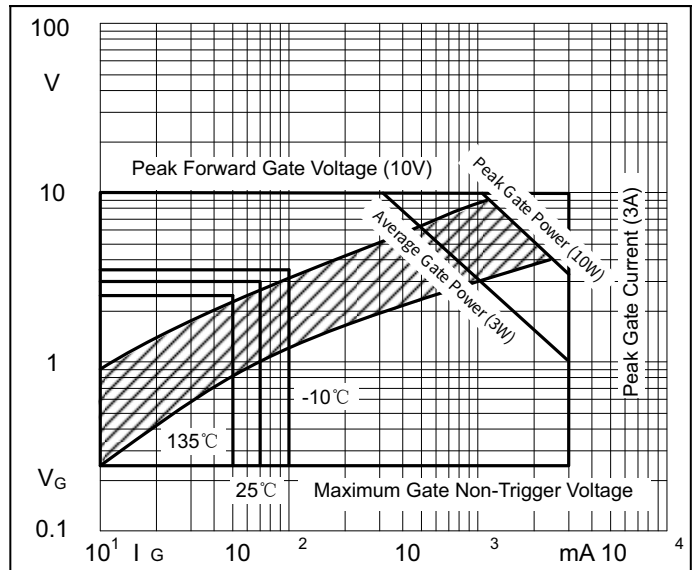
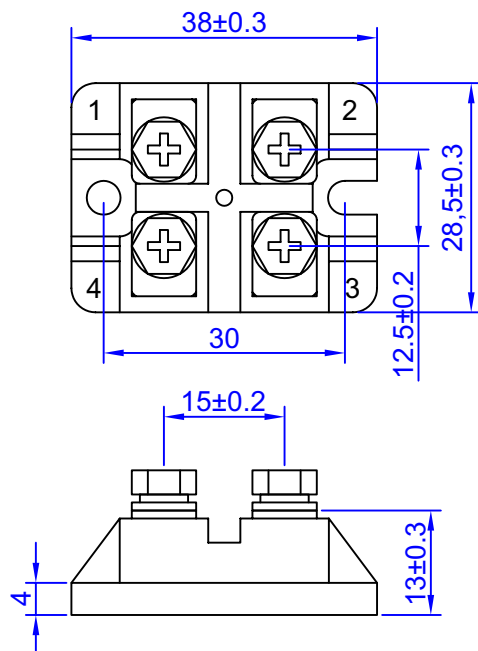


Fig8. Gate trigger Characteristics

Package Outline Information



Dimensions in mm

