Module Type

Diode

Maximum Ratings

Symbol	Item	Conditions	Values	Units
I_D	Output Current(D.C.)	Tc=101 Three phase full wave	75	A
I_{FSM}	Surge forward current	t=10mS Tvj =45	920	A
i^2t	Circuit Fusing Consideration		4200	A^2s
Visol	Isolation Breakdown Voltage(R.M.S)	a.c.50HZ;r.m.s.;1min	3000	V
Tvj	Operating Junction Temperature		-40 to +150	
Tstg	Storage Temperature		-40 to +125	
Mt	Mounting Torque	To terminals(M5)	3Ñ15%	Nm
Ms		To heatsink(M5)	3Ñ15%	Nm

RoHS
COMPLIANT

Thyristor

Maximum Ratings

Symbol	Item	Conditions	Values	Units
I_{TAV}	Average On-State Current	Tc=99 , Single Phase half wave 180° conduction	75	A
I_{TSM}	Surge On-State Current	TVJ=45 t=10ms (50Hz), sine VR=0	920	A
i^2t	Circuit Fusing Consideration		4200	A^2s
Visol	Isolation Breakdown Voltage(R.M.S)	a.c.50HZ;r.m.s.;1 min	3000	V
Tvj	Operating Junction Temperature		-40 to +125	
Tstg	Storage Temperature		-40 to +125	
Mt	Mounting Torque	To terminals(M5)	3Ñ15%	Nm
Ms		To heatsink(M5)	3Ñ15%	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/εs	150	A/εs
dv/dt	Critical Rate of Rise of Off-State Voltage, min.	$T_J=T_{VJM}$,$V_D=2/3V_{DRM}$,linear voltage rise	500	V/εs

Electrical and Thermal Characteristics

Symbol	Item	Conditions	Values			Units
			Min.	Typ.	Max.	
V_{TM}	Peak On-State Voltage, max.	T=25 I_T =100A			1.30	V
I_{RRM}/I_{DRM}	Repetitive Peak Reverse Current, max. / Repetitive Peak Off-State Current, max.	$T_{VJ}=T_{VJM}$,$V_R=V_{RRM}$,$V_D=V_{DRM}$			20	mA
V_{GT}	Gate Trigger Voltage, max.	T_{VJ} =25 , V_D =6V			3	V
I_{GT}	Gate Trigger Current, max.	T_{VJ} =25 , V_D =6V			150	mA
Rth(j-c)	Thermal Impedance, max.	Junction to Case			0.30	/W
Rth(c-s)	Thermal Impedance, max.	Case to Heatsink			0.10	/W

Performance Curves

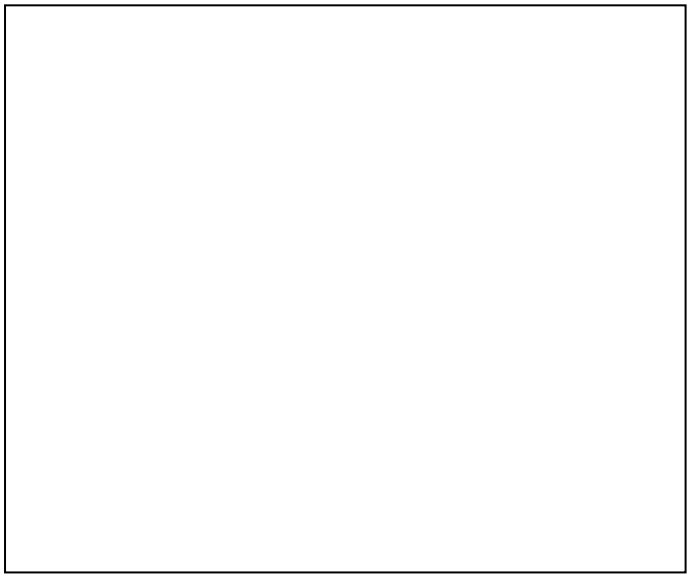

Fig1. Power dissipation

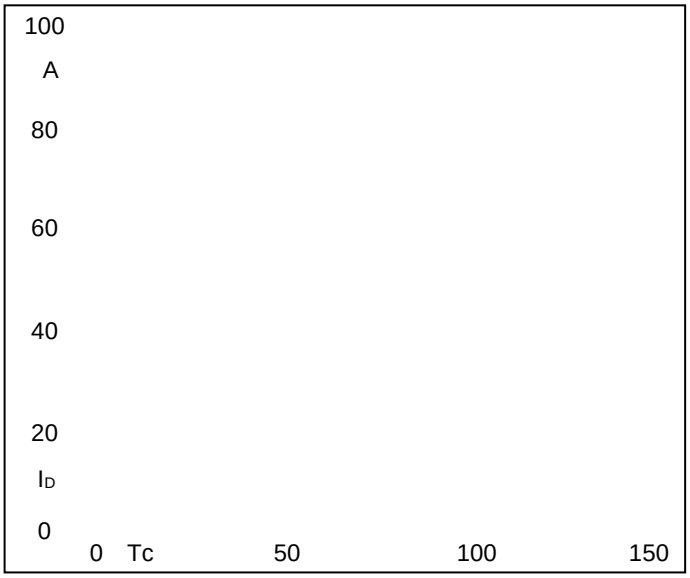

Fig2. Forward Current Derating Curve

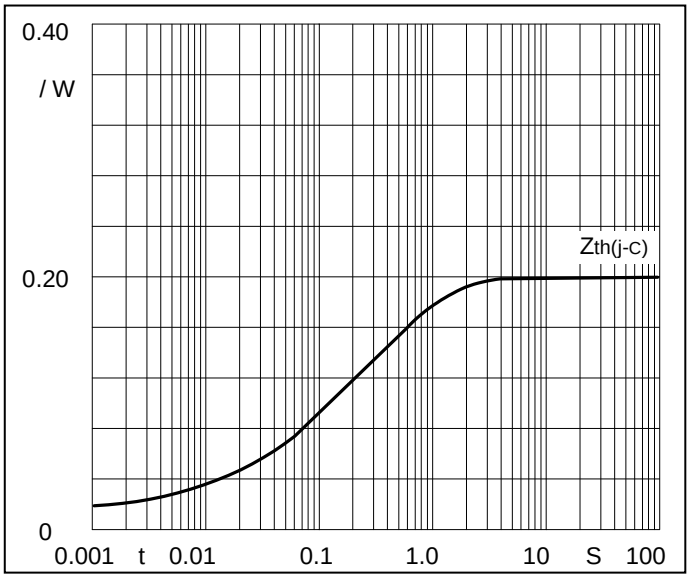

Fig3. Transient thermal impedance

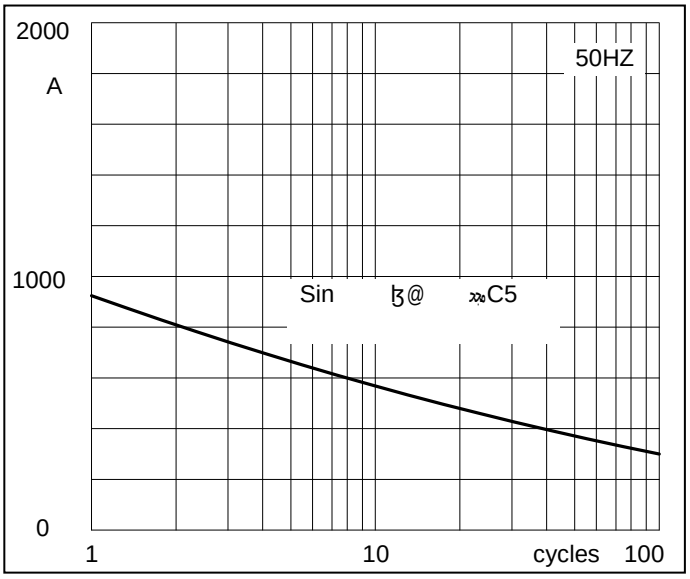

Fig4. Max Non-Repetitive Forward Surge Current

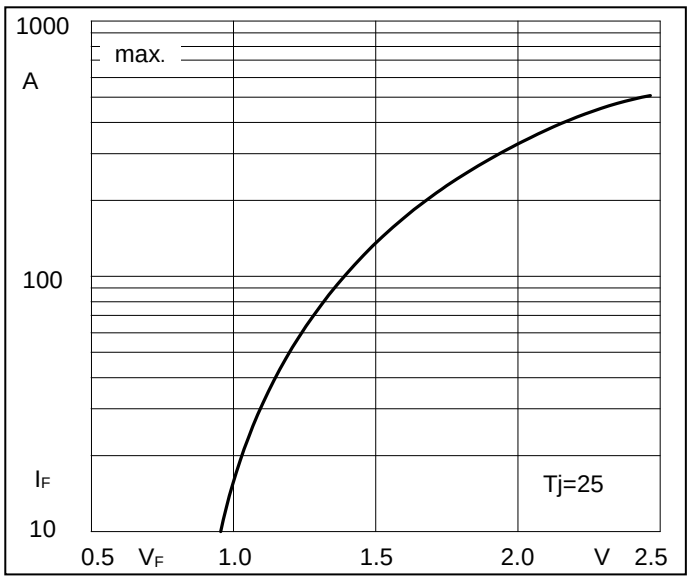

Fig5. Forward Characteristics

Fig6. SCR Power dissipation

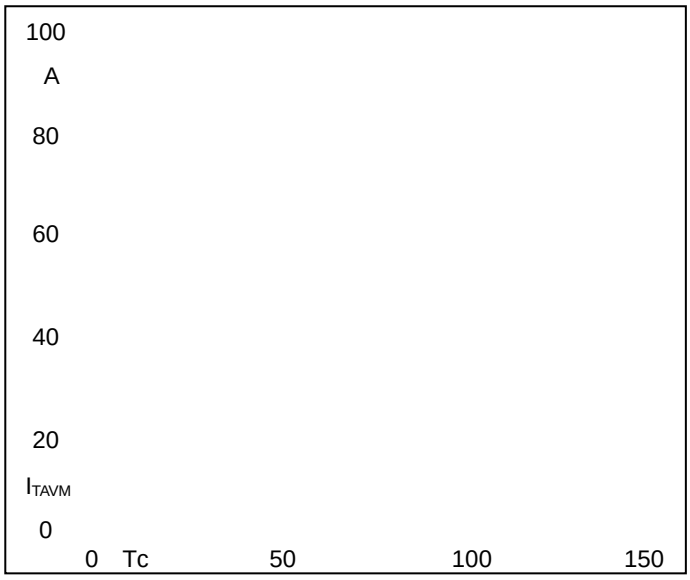

Fig7. SCR Forward Current Derating Curve

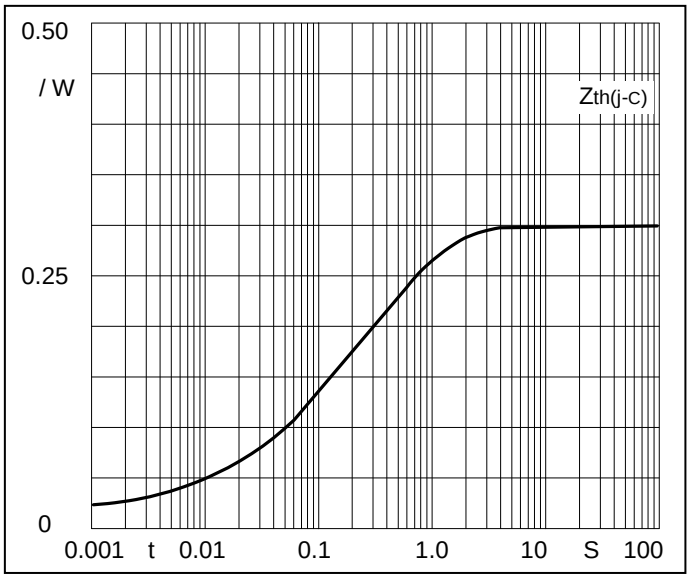

Fig8. SCR Transient thermal impedance

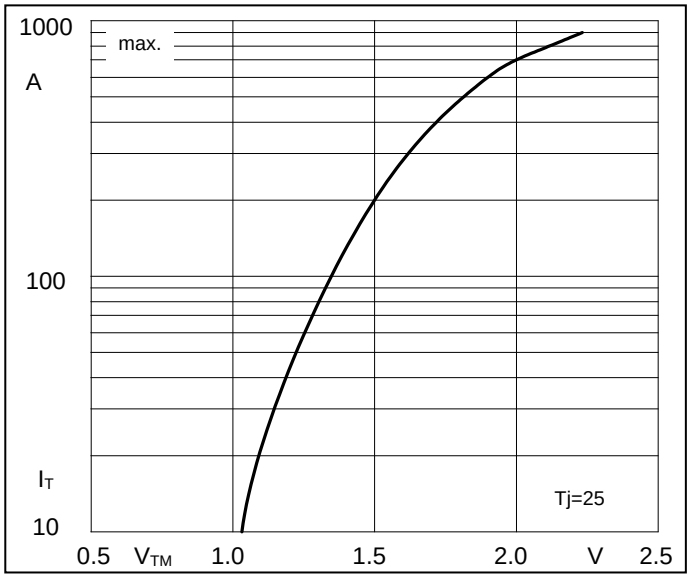

Fig9. SCR Forward Characteristics

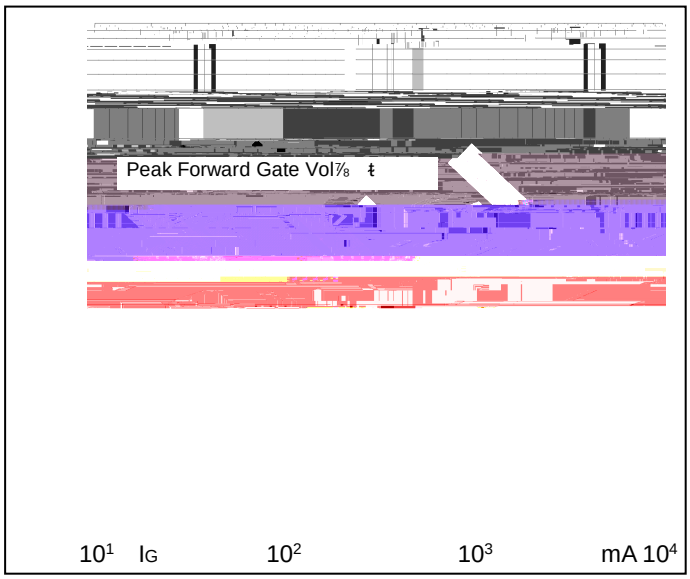

Fig10. Gate trigger Characteristics

Package Outline Information

CASE: L1

Packing Standard

Item	Length: A (mm)	Width: B (mm)	Height: C (mm)	Quantity (PCS)
Inner Box	276	258	48	6 on32 0.96 27.72 r