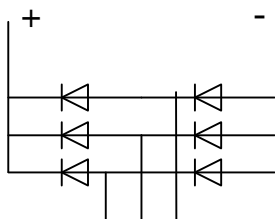


**Circuit**



## Module Type

### Diode

#### Maximum Ratings

| Symbol     | Item                               | Conditions                       | Values       | Units  |
|------------|------------------------------------|----------------------------------|--------------|--------|
| $I_D$      | Output Current(D.C.)               | $T_c=96$ Three phase full wave   | 200          | A      |
| $I_{FSM}$  | Surge forward current              | $t=10ms, \text{sine}, T_{vj}=45$ | 1900         | A      |
| $i^2t$     | Circuit Fusing Consideration       | $t=10ms, \text{sine}, T_{vj}=45$ | 18050        | $A^2s$ |
| $V_{isol}$ | Isolation Breakdown Voltage(R.M.S) | a.c.50HZ;r.m.s.;1min             | 3000         | V      |
| $T_{vj}$   | Operating Junction Temperature     |                                  | -40 to +150  |        |
| $T_{stg}$  | Storage Temperature                |                                  | -40 to +125  |        |
| $M_t$      | Mounting Torque                    | To terminals(M4)                 | $2 \pm 15\%$ | Nm     |
| $M_t$      |                                    | To terminals(M6)                 | $5 \pm 15\%$ | Nm     |
| $M_s$      |                                    | To heatsink(M6)                  | $5 \pm 15\%$ | Nm     |
| Weight     |                                    | Module Approximately             | 320          | g      |

#### Thermal Characteristics

| Symbol        | Item                    | Conditions              | Values | Units |
|---------------|-------------------------|-------------------------|--------|-------|
| $R_{th(j-c)}$ | Thermal Impedance, max. | Junction to Case(TOTAL) | 0.12   | /W    |
| $R_{th(c-s)}$ | Thermal Impedance, max. | Case to Heat sink       | 0.06   | /W    |

#### Electrical Characteristics



## Thyristor Maximum Ratings

| Symbol    | Item                     | Conditions                                                         | Values | Units |
|-----------|--------------------------|--------------------------------------------------------------------|--------|-------|
| $I_{TAV}$ | Average On-State Current | $T_c=93^\circ\text{C}$ , Single Phase half wave<br>180° conduction | 200    | A     |
| $I_{TSM}$ | Surge On-State Current   |                                                                    |        |       |

## Electrical and Thermal Characteristics



## Performance Curves

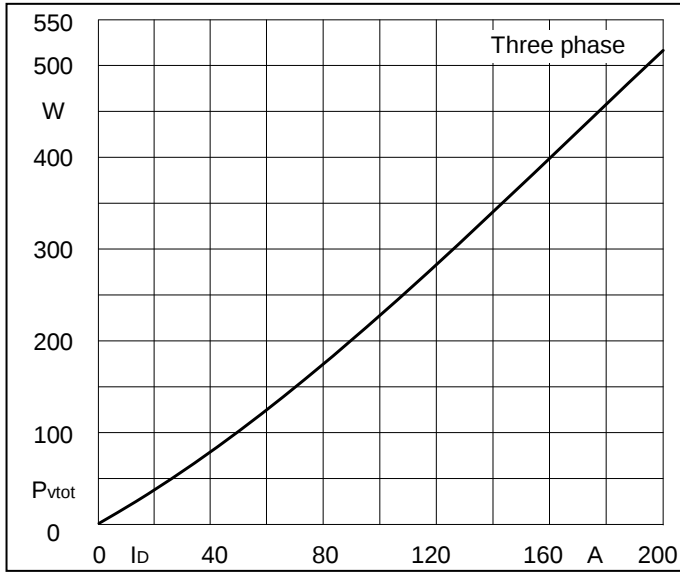


Fig1. Power dissipation

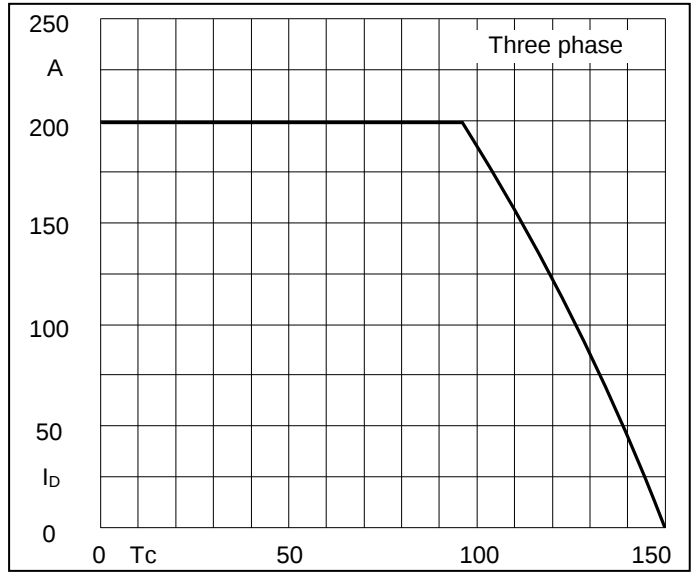


Fig2. Forward Current Derating Curve

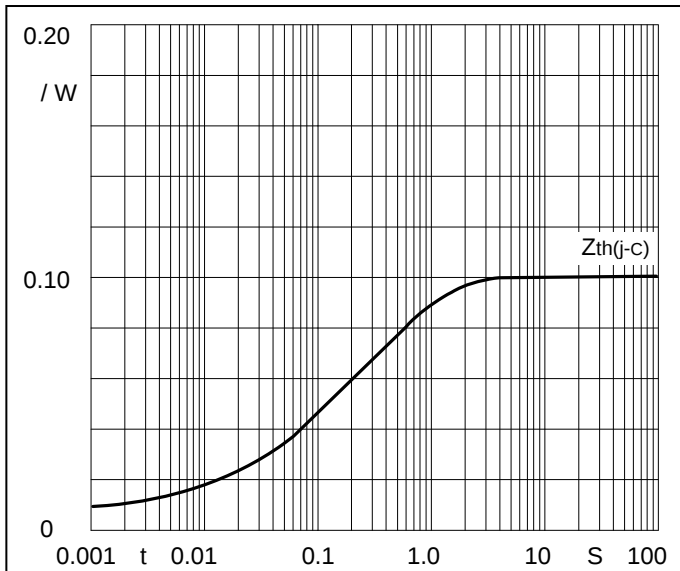


Fig3. Transient thermal impedance

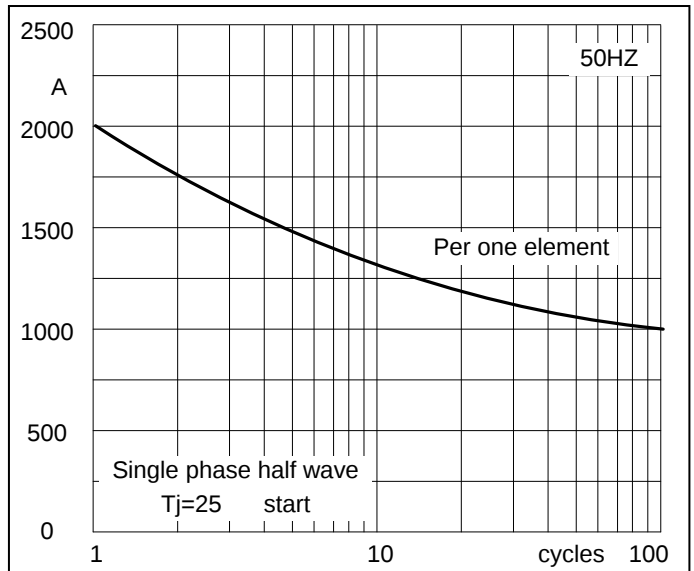


Fig4. Max Non-Repetitive Forward Surge Current

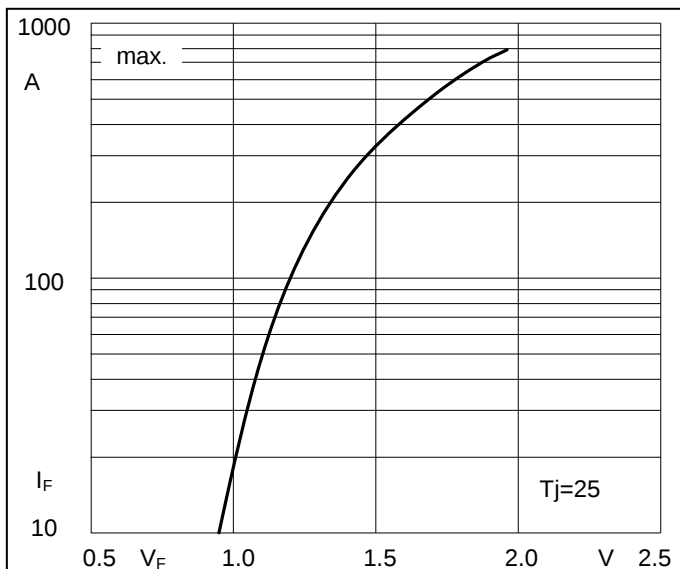


Fig5. Forward Characteristics

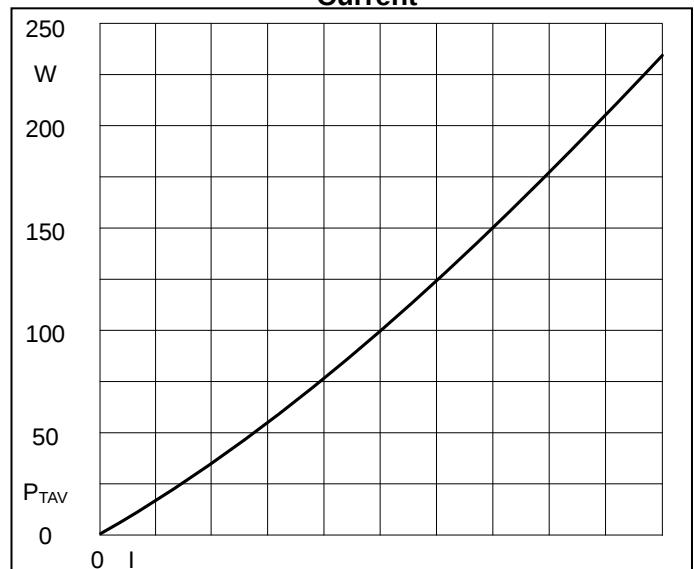


Fig6. SCR Power dissipation

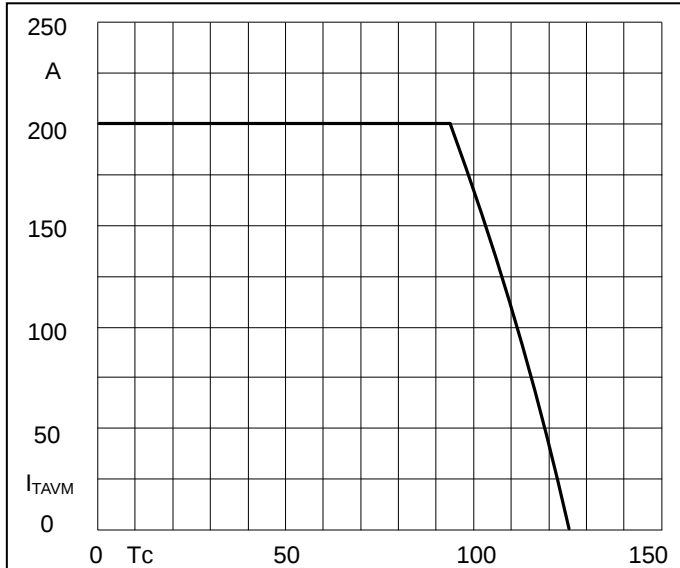


Fig7. SCR Forward Current Derating Curve

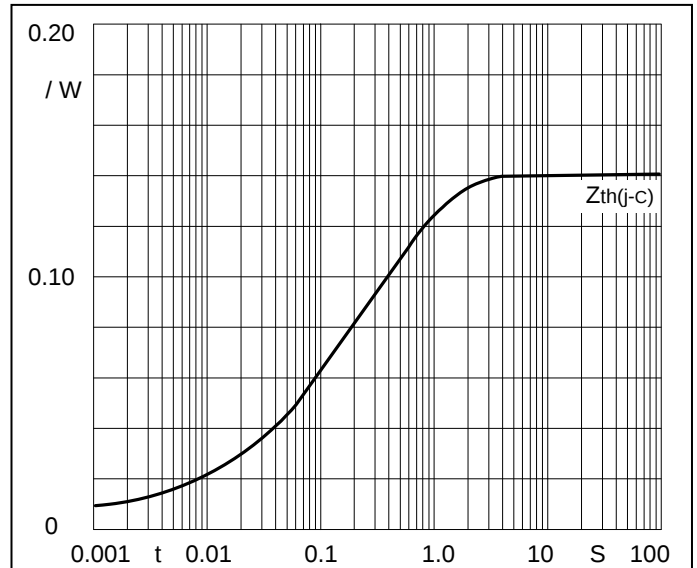


Fig8. SCR Transient thermal impedance

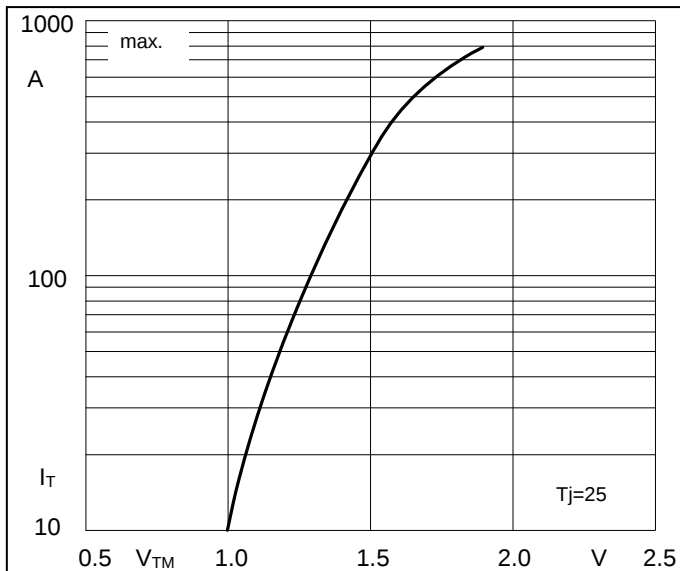


Fig9. SCR Forward Characteristics

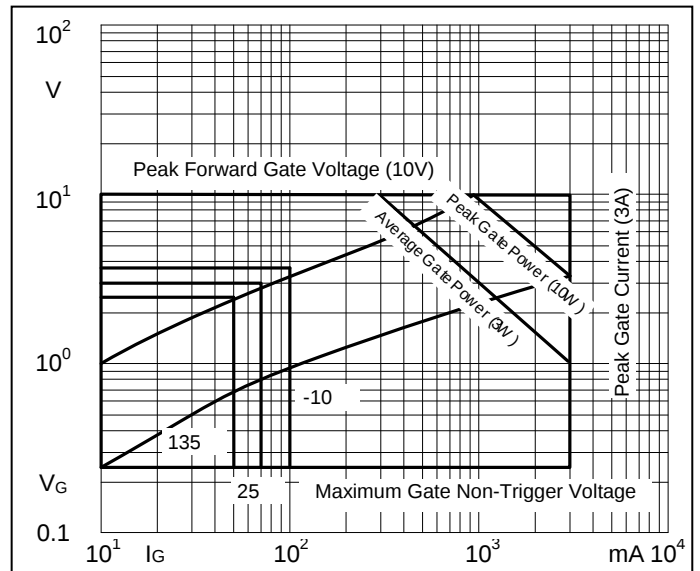


Fig10. Gate trigger Characteristics

