



Key Parameters

| | |
|---------------------|----------|
| V_{DRM} / V_{RRM} | = 2400V |
| $I_{T(AV)}$ | = 550A |
| I_{TSM} | = 10.0kA |
| $V_{T(TO)}$ | = 0.99V |
| r_T | = 0.47mΩ |

Features

- Full blocking capability over wide temperature range
- High Surge current capability
- Hermetic metal case with ceramic insulator

Applications

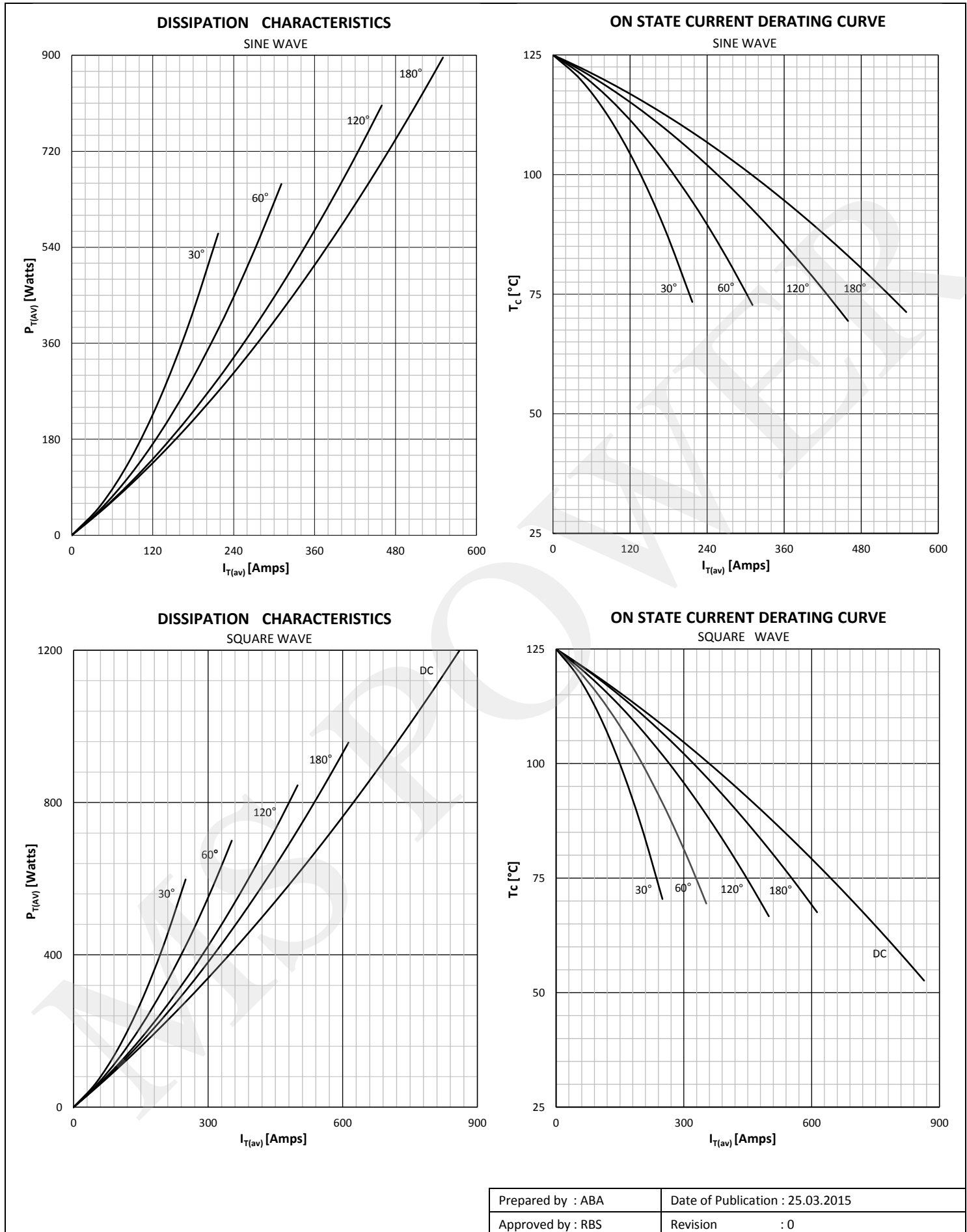
- Battery Chargers
- Medical Equipment
- UPS
- Power Supplies
- Motor control
- Controlled Rectifiers
- Transportation
- Induction Heating
- Welding

Ordering Information

| | | | |
|--|--------------|---|--|
| MS T | 550 | C | X X |
| Phase Control Thyristor | Current Code | C - Capsule package with Alloyed silicon technology | Voltage Code Code X 100 = V_{DRM}/V_{RRM} |
| Order Code MS T550C24 : 2400V V_{DRM}, V_{RRM} , 26mm clamp height capsule thyristor | | | |

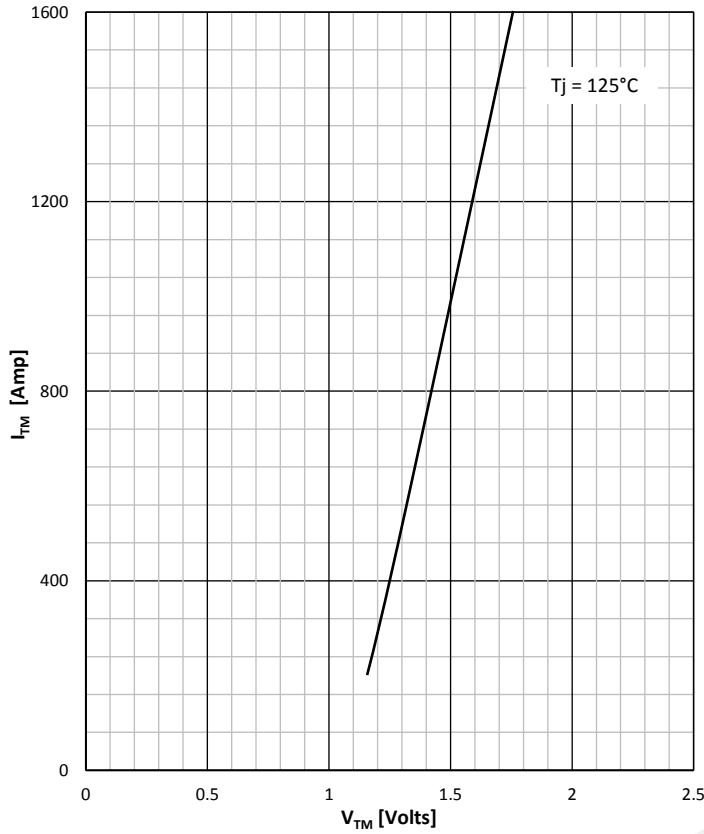
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| Symbol | Characteristic | Conditions | T _j [°C] | Value | Unit |
|----------------------|--|---|------------------------|----------------------------------|------------------|
| BLOCKING | | | | | |
| V _{RRM} | Repetitive peak reverse voltage | | 125 | 200 - 2400 | V |
| V _{RSM} | Non-repetitive peak reverse voltage | | 125 | 300 - 2500 | V |
| V _{DRM} | Repetitive peak off-state voltage | | 125 | 200 - 2400 | V |
| I _{RRM} | Repetitive peak reverse current | V = V _{RRM} | 125 | 30 | mA |
| I _{DRM} | Repetitive peak off-state current | V = V _{DRM} | 125 | 30 | mA |
| CONDUCTING | | | | | |
| I _{T(AV)} | Mean on state current | 180° sin ,50 Hz, T _c =70°C, Double side cooled | | 550 | A |
| I _{RMS} | RMS on-state current | T _c =70°C, Double side cooled | | 864 | A |
| I _{TSM} | Surge on-state current | Sine wave, 10 ms Without reverse voltage | 25 | 10000 | A |
| | | | 125 | 9200 | A |
| I ² t | I ² t | Sine wave, 10 ms Without reverse voltage | 25 | 500 x 10 ³ | A ² s |
| | | | 125 | 423 x 10 ³ | A ² s |
| V _T | On-state voltage | On-state current = 625A | 125 | 1.34 | V |
| V _{T(TO)} | Threshold voltage | | 125 | 0.99 | V |
| r _T | On-state slope resistance | | 125 | 0.47 | mΩ |
| SWITCHING | | | | | |
| di/dt | Critical rate of rise of on-state current | Repetitive | 125 | 150 | A/μs |
| dv/dt | Critical rate of rise of off-state voltage | V _{DR} = 67%V _{DRM} | 125 | 500 | V/μs |
| GATE | | | | | |
| I _{gt} | Gate trigger current | V _D =6V | 25 | 150 | mA |
| V _{gt} | Gate trigger voltage | V _D =6V | 25 | 3.0 | V |
| I _H | Holding current | V _D =6V, gate open circuit | 25 | 600 | mA |
| I _L | Latching current | V _D =6V | 25 | 1000 | mA |
| MOUNTING | | | | | |
| R _{th(j-c)} | Thermal impedance, sin 180° | Junction to case, Double side cooled | | 0.060 | °C/W |
| R _{th(j-c)} | Thermal impedance, rec120° | Junction to case, Double side cooled | | 0.069 | °C/W |
| R _{th(c-h)} | Thermal impedance | Case to heatsink, Double side cooled | | 0.02 | °C/W |
| T _j | Max. junction temperature | | | 125 | °C |
| T _{stg} | Storage temperature | | | -40 125 | °C |
| M | Clamping Force | | | 12 - 15 | kN |
| W | Weight (Approx.) | | | 255 | gm |
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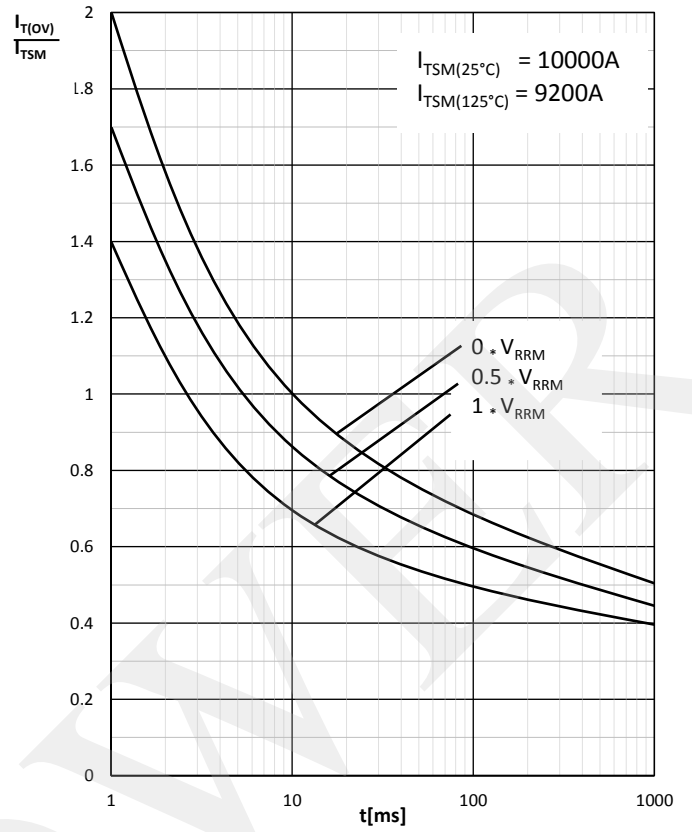


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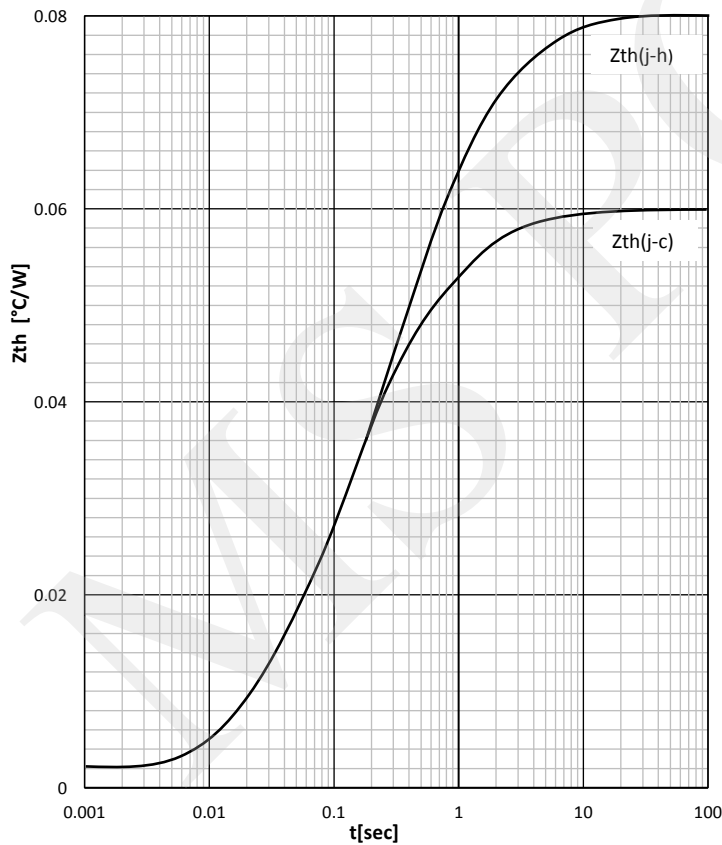
ON STATE CHARACTERISTIC



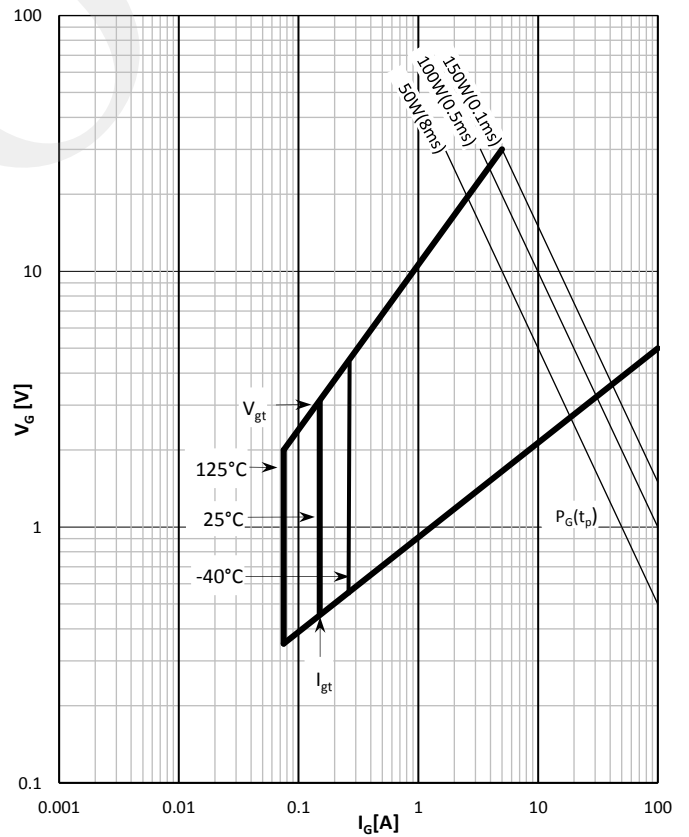
SURGE CHARACTERISTICS



TRANSIENT THERMAL IMPEDANCE



GATE TRIGGER CHARACTERISTICS



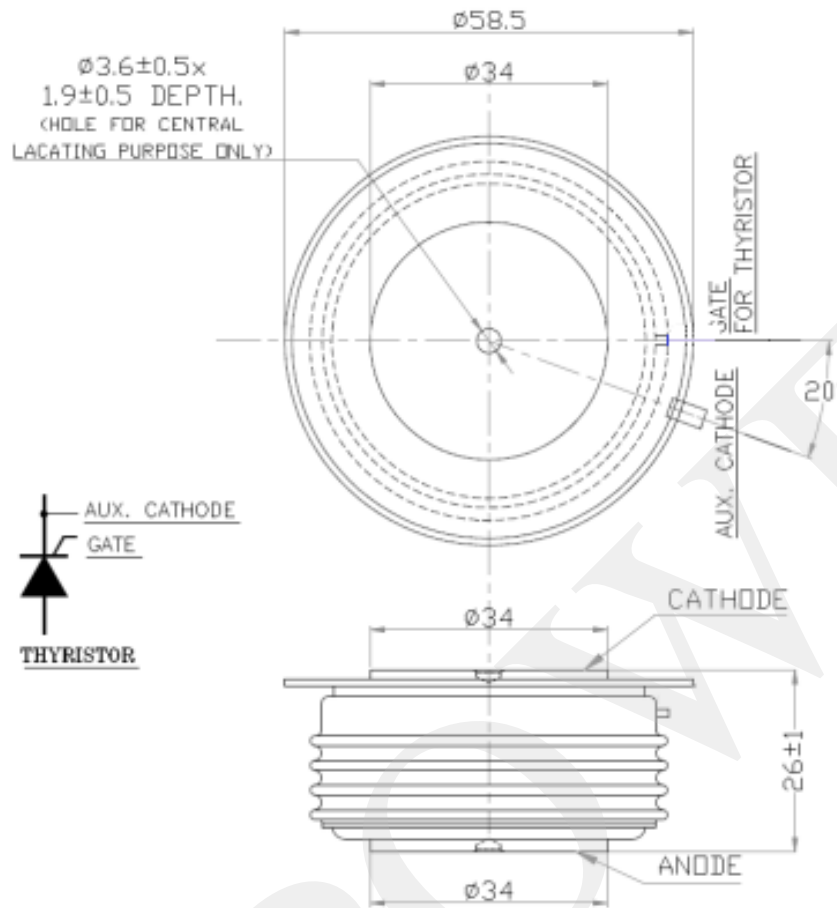
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