



Key Parameters

| | |
|-------------|-------------------|
| V_{RRM} | = 400V |
| $I_{F(AV)}$ | = 7110A |
| I_{FSM} | = 62000A |
| $V_{F(TO)}$ | = 0.74V |
| r_F | = 0.026m Ω |

Features

- Full blocking capability over wide temperature range
- Hermetically sealed ceramic package
- High case non-rupture current

Applications

- Uncontrolled Rectifiers
- Welding

Ordering Information

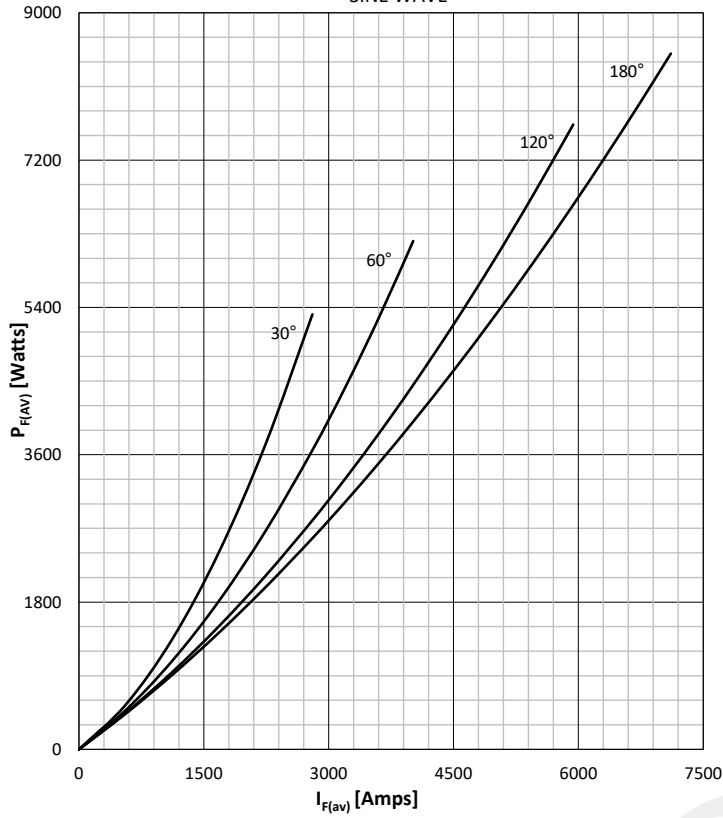
| MS DW | 7110 | C | XX |
|--|--------------|---|--|
| Welding Diode | Current code | C - Capsule package with Alloyed silicon technology | Voltage Code Code X 100 = V_{RRM} |
| Order Code MS DW7110C04 : 400V V_{RRM} , Capsule Welding Diode | | | |

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| Symbol | Characteristic | Conditions | T _j [°C] | Value | Unit |
|----------------------|-------------------------------------|---|------------------------|----------------------------------|------------------|
| BLOCKING | | | | | |
| V _{RRM} | Repetitive peak reverse voltage | | 170 | 200 - 400 | V |
| V _{RSM} | Non-repetitive peak reverse voltage | | 170 | 200 - 400 | V |
| I _{RRM} | Repetitive peak reverse current | V = V _{RRM} | 170 | 50 | mA |
| CONDUCTING | | | | | |
| I _{F(AV)} | Mean forward current | 180° sin, 50 Hz, T _c =85°C, double side cooled | | 7110 | A |
| I _{FRMS} | RMS current | T _c =85°C, double side cooled | | 11163 | A |
| I _{FSM} | Surge forward current | Sine wave, 10 ms Without reverse voltage | 25 | 62000 | A |
| | | | 170 | 55000 | A |
| I ² t | I ² t | Sine wave, 10 ms Without reverse voltage | 25 | 19220 x 10 ³ | A ² s |
| | | | 170 | 15125 x 10 ³ | A ² s |
| V _F | Forward voltage | On-state current = 5000A | 25 | 1.05 | V |
| V _{F(TO)} | Threshold voltage | | 170 | 0.74 | V |
| r _F | Forward slope resistance | | 170 | 0.026 | mΩ |
| MOUNTING | | | | | |
| R _{th(j-c)} | Thermal impedance, sin 180° | Junction to case, double side cooled | | 0.01 | °C/W |
| R _{th(c-h)} | Thermal impedance | Case to heatsink, double side cooled | | 0.005 | °C/W |
| T _j | Max. junction temperature | | | 170 | °C |
| T _{stg} | Storage temperature | | | -40 170 | °C |
| M | Clamping force | | | 22 | KN |
| W | Weight (Approx.) | | | 140 | gm |
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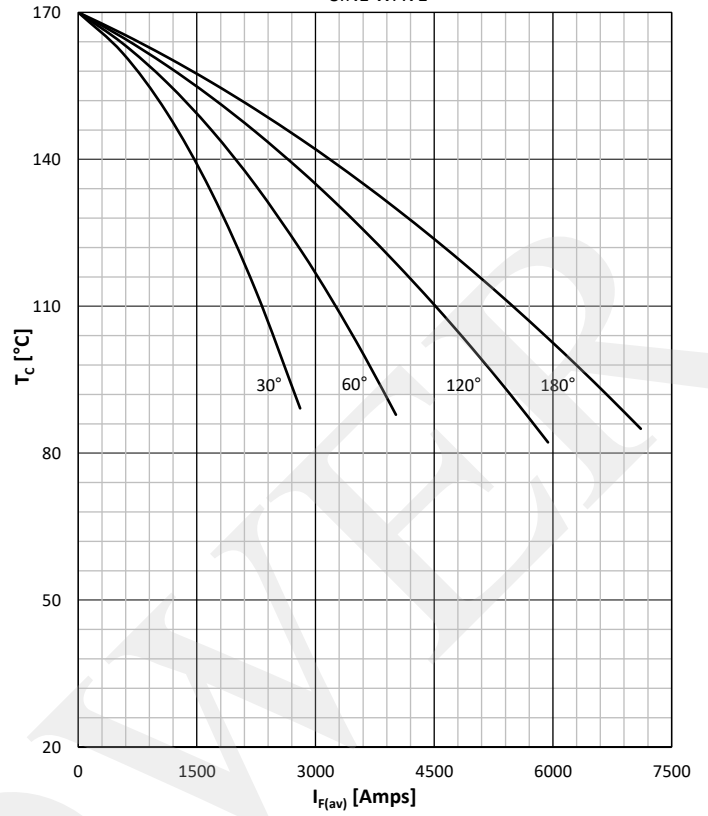
DISSIPATION CHARACTERISTICS

SINE WAVE



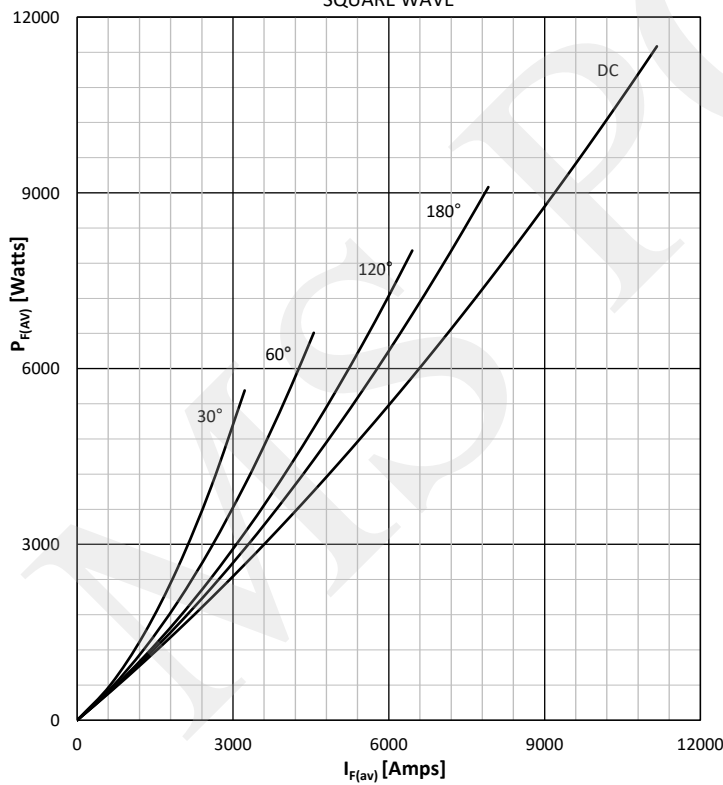
FORWARD CURRENT DERATING CURVE

SINE WAVE



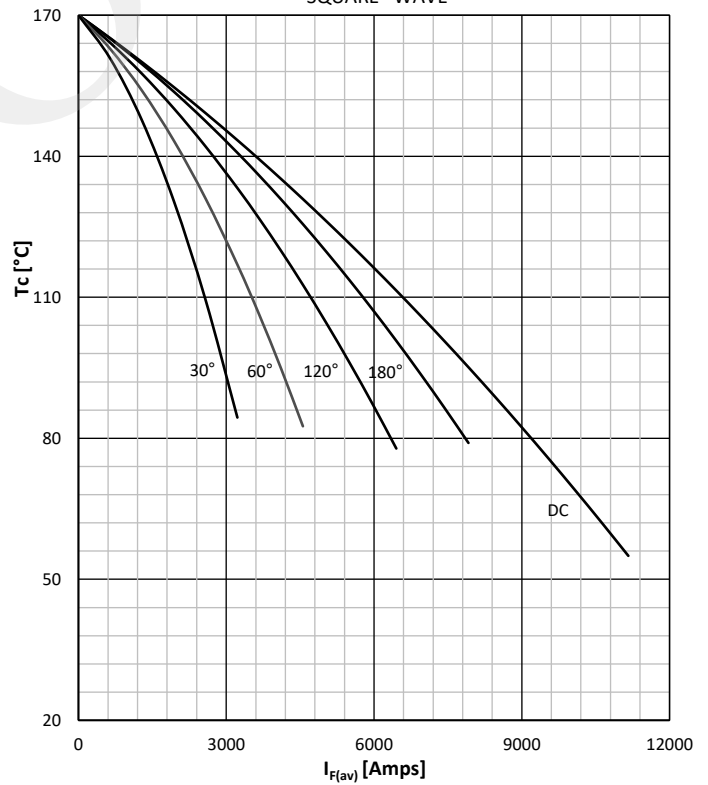
DISSIPATION CHARACTERISTICS

SQUARE WAVE



FORWARD CURRENT DERATING CURVE

SQUARE WAVE

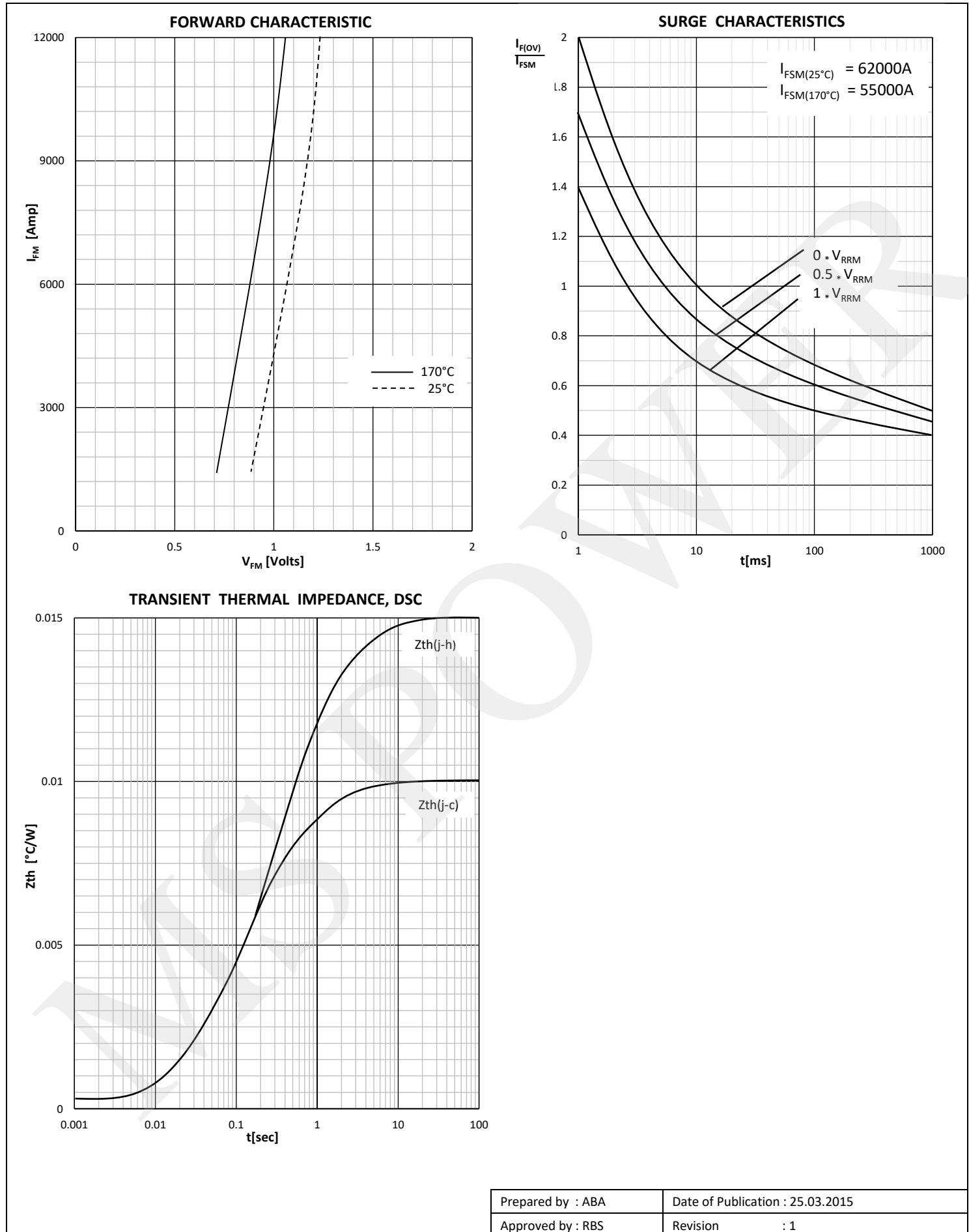


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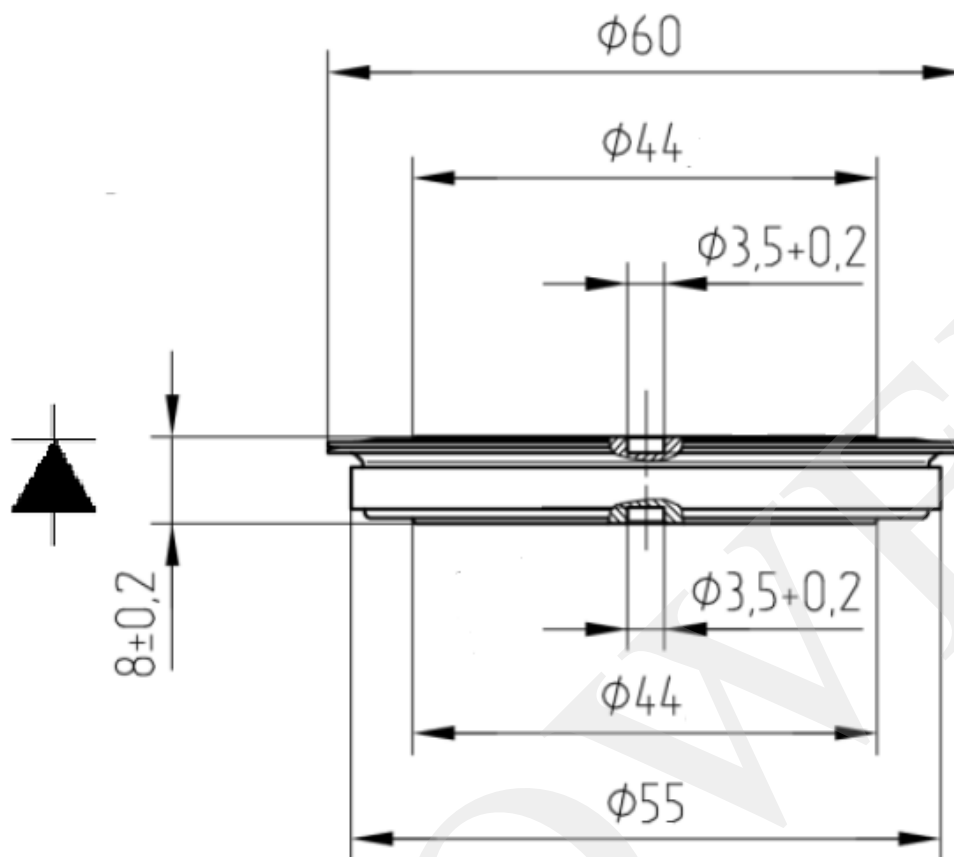
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