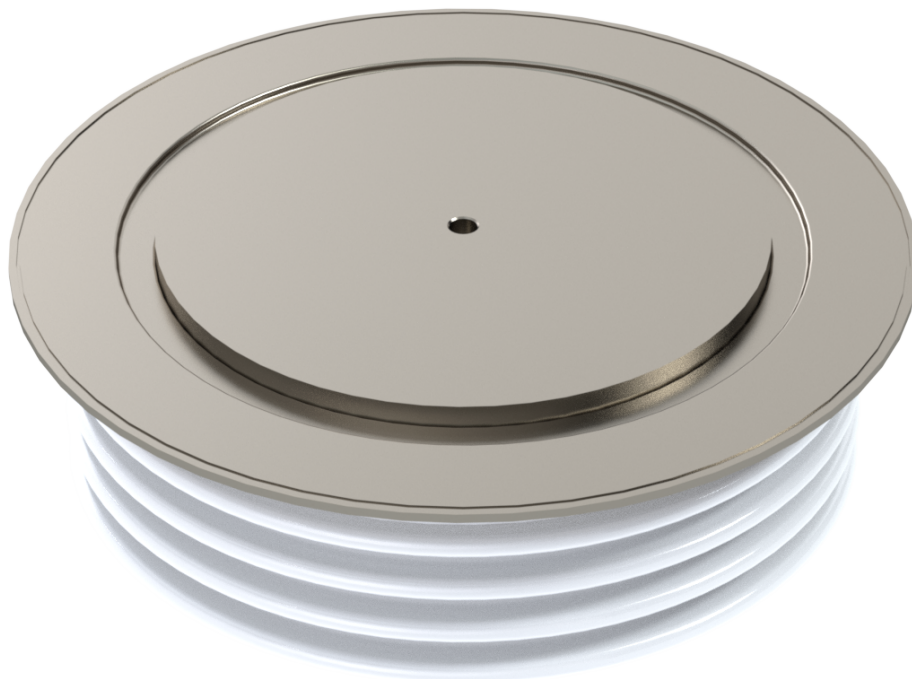


**Rectifier
Diode
Type SA24MP5282J0**

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Date: April, 2020
Data Sheet Issue: 1



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| | | | | | | |
|----|--------------|--------------|--------------|-----------|--------------|---------------|
| SA | 24 | MP | 5282 | J | 0 | |
| - | Voltage Code | Outline Code | Current code | Type code | Special code | Optional code |

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Absolute Maximum Ratings

| VOLTAGE RATINGS | | MAXIMUM LIMITS | UNITS |
|-----------------|---|----------------|-------|
| V_{RRM} | Repetitive peak reverse voltage, (note 1) | 2400 | V |
| V_{RSM} | Non-repetitive peak reverse voltage, (note 1) | 2500 | V |
| V_{RDC} | Maximum reverse D.C. Voltage, (note 1) | 1450 | V |
| note 1) | De-Rating factor of 0.13% per °C is applicable for T_j below 25°C | | |

| OTHER RATINGS | | MAXIMUM LIMITS | UNITS |
|---------------|---|-------------------|----------------------|
| $I_{F(AV)M}$ | Maximum average forward current, $T_{sink} = 55^\circ\text{C}$, (note 1) | 5282 | A |
| $I_{F(AV)M}$ | Maximum average forward current, $T_{sink} = 100^\circ\text{C}$, (note 1) | 3556 | A |
| $I_{F(RMS)}$ | Nominal RMS forward current, $T_{sink} = 25^\circ\text{C}$ (note 1) | 9830 | A |
| $I_{f(d.c.)}$ | D.C. forward current, $T_{sink} = 25^\circ\text{C}$ (note 2) | 8207 | A |
| I_{FSM} | Peak non-repetitive surge current $t_p = 10\text{ms}$, $V_{RM} = 60\%V_{RRM}$, (note 3) | 60 | kA |
| I_{FSM2} | Peak non-repetitive surge current $t_p = 10\text{ms}$, $V_{RM} \leq 10\text{V}$, (note 3) | 67 | kA |
| I^2t | I^2t capacity for fusing $t_p = 10\text{ms}$, $V_{RM} = 60\%V_{RRM}$, (note 3) | $18.0 \cdot 10^6$ | A^2s |
| I^2t | I^2t capacity for fusing $t_p = 10\text{ms}$, $V_{RM} \leq 10\text{V}$, (note 3) | $22.4 \cdot 10^6$ | A^2s |
| T_{jop} | Operating temperature range | -55 to +160 | °C |
| T_{stg} | Storage temperature range | -55 to +190 | °C |
| note 1) | Double-side cooled, single phase, 50Hz, 180° half-sinewave. | | |
| note 2) | Double-side cooled. | | |
| note 3) | Half-sinewave, 160°C T_j initial. | | |

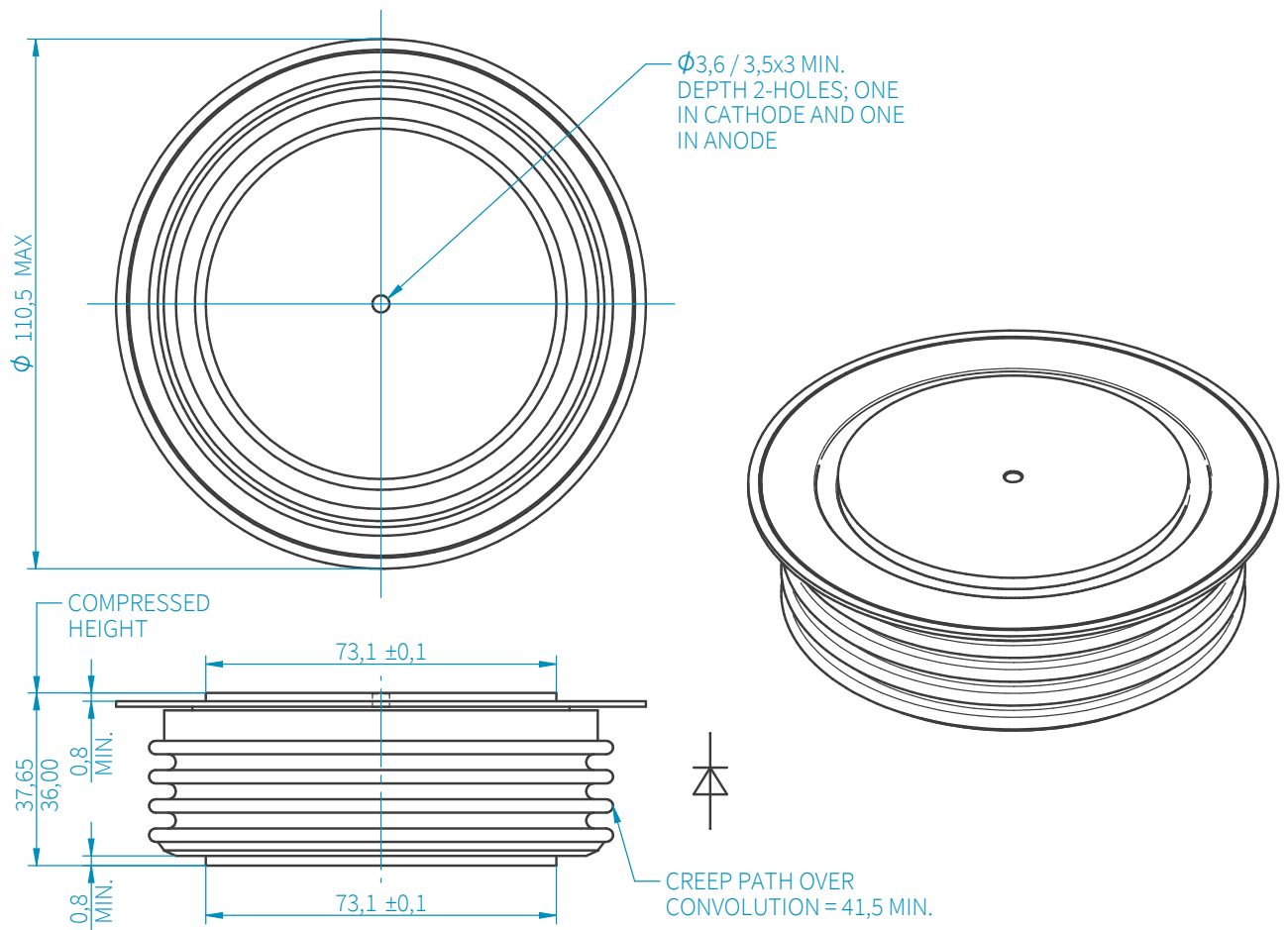
Characteristics

| | PARAMETER | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|-------------------|---|------------------------|-----|------|-------|-------|
| V _{FM} | Maximum peak forward voltage | I _{FM} =6000A | - | - | 1.35 | V |
| V _{T0} | Threshold Voltage | | - | - | 0.97 | V |
| r _T | Slope resistance | | - | - | 0.064 | mΩ |
| I _{RRM} | Peak reverse current | Rated V _{RRM} | - | - | 100 | mA |
| R _{thJK} | Thermal resistance, junction to heatsink | Double side cooled | - | - | 0.011 | K/W |
| | | Single side cooled | - | - | 0.022 | K/W |
| F | Mounting force | note 2) | 27 | - | 47 | kN |
| W _t | Weight | | - | 1700 | - | g |
| note 1) | Unless otherwise indicated T _j = 175°C | | | | | |
| note 2) | For other clamp forces consult factory | | | | | |

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