

DB3-3500

Diode

KKDB3-3500, November 2004 version

ELECTRICAL PARAMETERS

Voltage ratings

| Voltage class | U_{RRM} | U_{RSM} | I_{RRM} |
|---------------|-----------|-----------|-----------|
| | V | V | mA |
| 30 | 3000 | 3100 | 100 |
| 32 | 3200 | 3300 | |
| 34 | 3400 | 3500 | |
| 36 | 3600 | 3700 | |
| 38 | 3800 | 3900 | |
| 40 | 4000 | 4100 | |

Electrical properties

| Parameter | Unit | Test conditions | Value |
|---|--------------|-----------------------|---|
| Average forward current @ case temperature | $I_{F(AV)}$ | A | 3500 |
| | T_C | °C | 85 |
| RMS forward current | $I_{F(RMS)}$ | A | 5500 |
| Surge current | I_{FSM} | A | $T_j=150^\circ\text{C}$, $U_R=0,8U_{RRM}$, $t_p=10\text{ms}$ |
| I^2t – value | I^2t | kA^2s | 10580 |
| Forward voltage drop max. | U_{FM} | V | $T_j=25^\circ\text{C}$, $I_{FM}=4000\text{A}$ |
| Threshold voltage | $U_{F(T0)}$ | V | 0,64 |
| Slope resistance | r_F | $\text{m}\Omega$ | 0,096 |
| Reverse recovery time | t_{rr} | μs | $T_j=25^\circ\text{C}$, $I_{FM}=2000\text{A}$, $di_R/dt=25\text{A}/\mu\text{s}$ |

Thermal properties

| Parameter | Unit | Test conditions | Value |
|--------------------------------------|---------------------------|-----------------|---------------|
| Thermal resistance, junction to case | R_{thJC} | °C/W | two sided, DC |
| Thermal resistance, case to heatsink | R_{thCS} | °C/W | two sided |
| Operating junction temperature | $T_{jmin} \dots T_{jmax}$ | °C | -40...+150 |
| Storage temperature | T_{stg} | °C | -40...+150 |

Mechanical properties

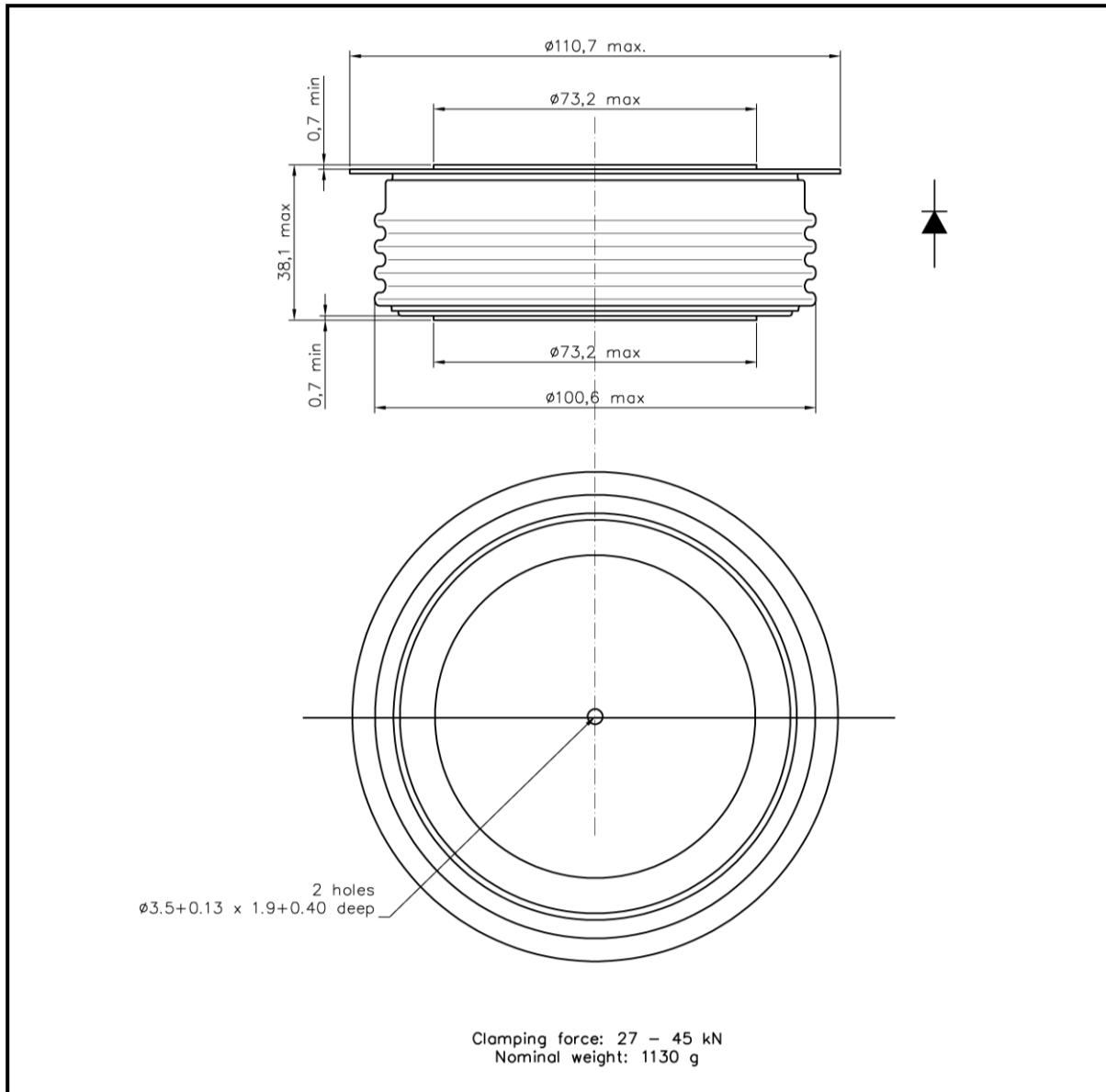
| Parameter | Unit | Value |
|----------------|-------|-------|
| Clamping force | F_M | kN |
| Weight | m | g |

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Package details



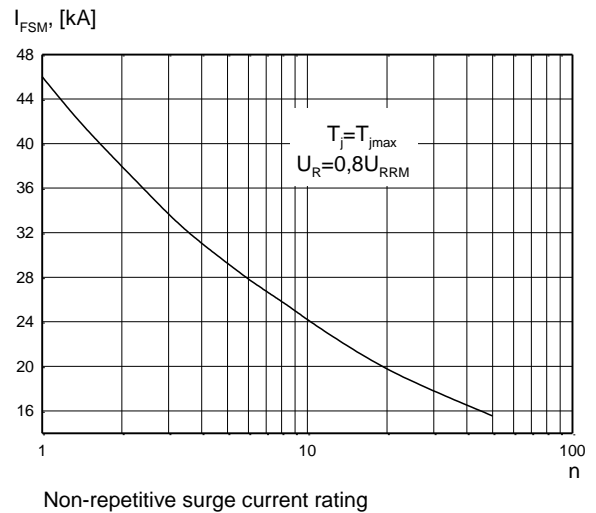
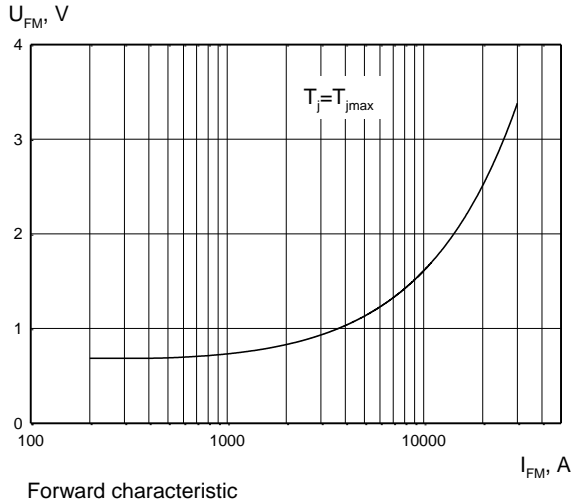
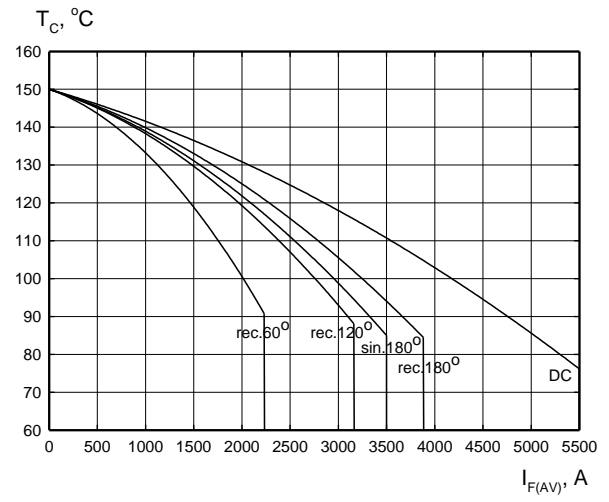
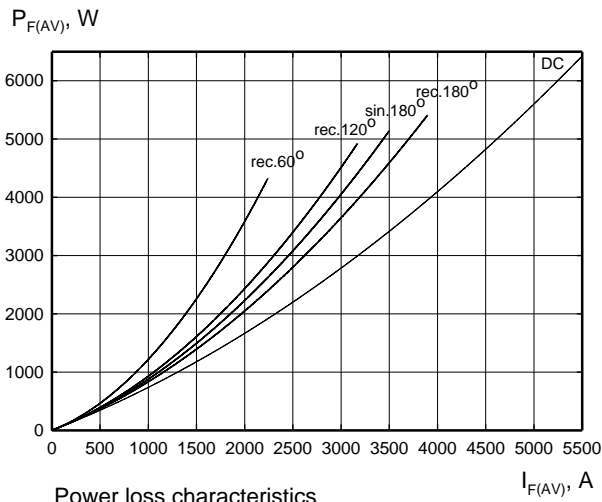
For further package information, please contact Sales & Marketing Department. All dimensions in mm, unless stated otherwise.
Do not scale.

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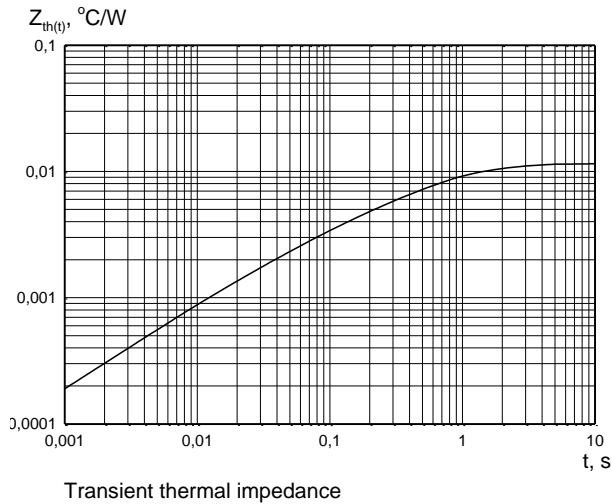
CHARACTERISTICS



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HEATSINKS

LAMINA S.I. has its own proprietary range of extruded aluminium heatsinks designed to optimise the performance of our semiconductors with natural and forced air flow. High efficiency water cooled copper heatsinks are also available.

DEVICE CLAMPS

Disc devices require the correct clamping force to ensure their best operation. LAMINA S.I. offers a wide selection of clamps to suit all of our manufactured devices.

POWER ASSEMBLY CAPABILITY

LAMINA S.I. provides a support for those customers requiring more than a basic semiconductor and offers precisely assembled Power Blocks according to factory or customer standards.