



Ruttonsha International Rectifier Ltd.

STANDARD RECOVERY DIODES

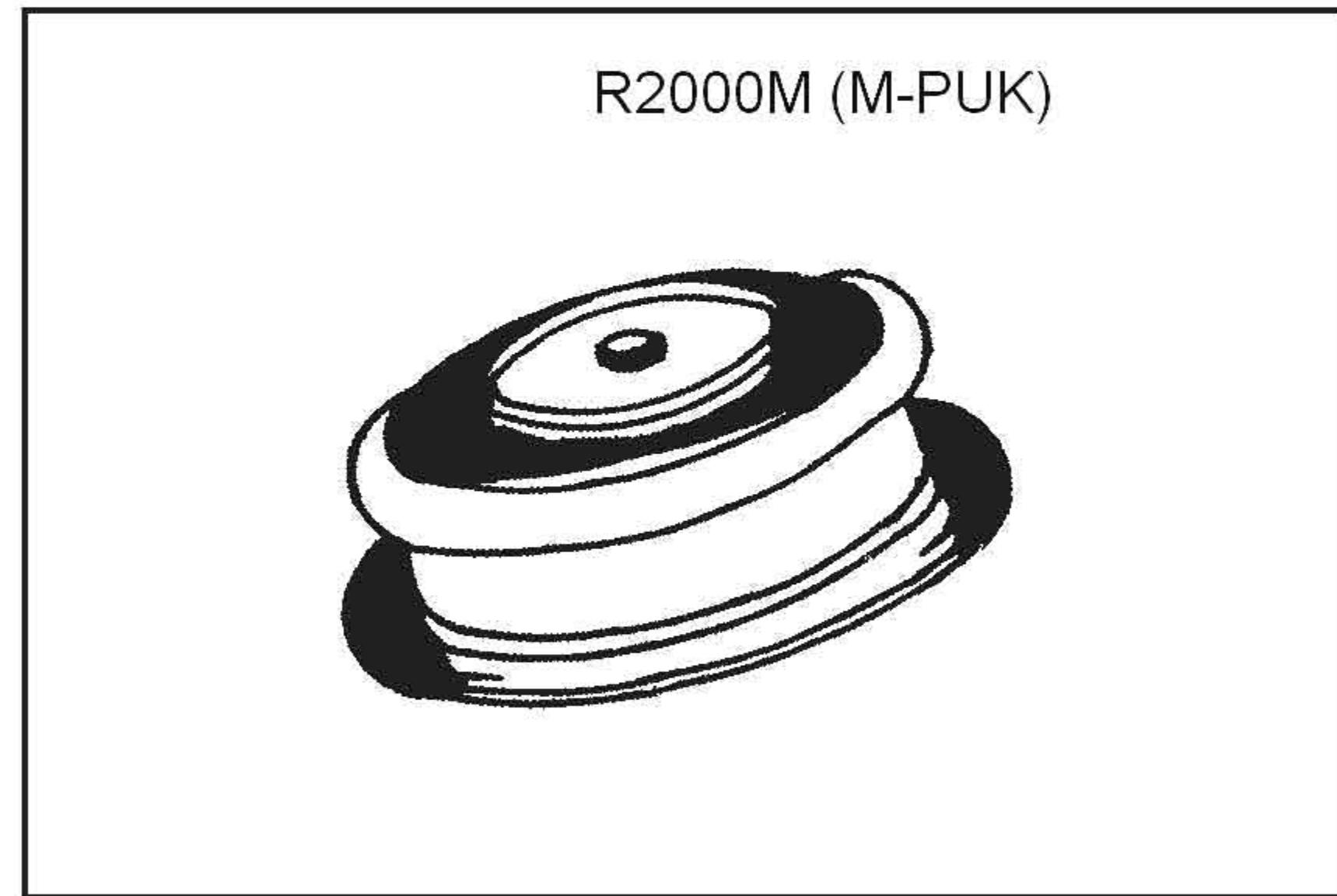
High Power Diodes Hockey Puk Version R2000L/M...C Series

FEATURES

- Wide current range
- High surge current capabilities
- Case style (L/M-PUK)

TYPICAL APPLICATIONS

- Converters
- High power drives
- Power supplies
- Traction Application



MAJOR RATINGS & CHARACTERISTICS

| Parameters | R2000L/M | Units |
|-----------------|--------------|-------------------|
| $I_{F(AV)}$ | 2000 | A |
| @ T_{hs} | 55 | °C |
| $I_{F(RMS)}$ | 3140 | A |
| @ T_{hs} | 55 | °C |
| I_{FSM} | @ 50 Hz | A |
| I^2t | @ 50 Hz | KA ² s |
| V_{RRM} range | 5000 to 6000 | V |
| T_J | -40 to 160 | °C |

STANDARD RECOVERY DIODES

R2000L/M

ELECTRICAL SPECIFICATION

VOLTAGE RATINGS

| Type Number | Voltage Code | V_{RRM} , max. repetitive peak reverse voltage V | V_{RRM} , max. non-repetitive peak reverse voltage V | I_{DRM} max. @ $T_J = 125^\circ C$ mA |
|-------------|--------------|--|--|---|
| R 2000L/M | 50 | 5000 | 5100 | 200 |
| | 55 | 5500 | 5600 | |
| | 60 | 6000 | 6100 | |

FORWARD CONDUCTION

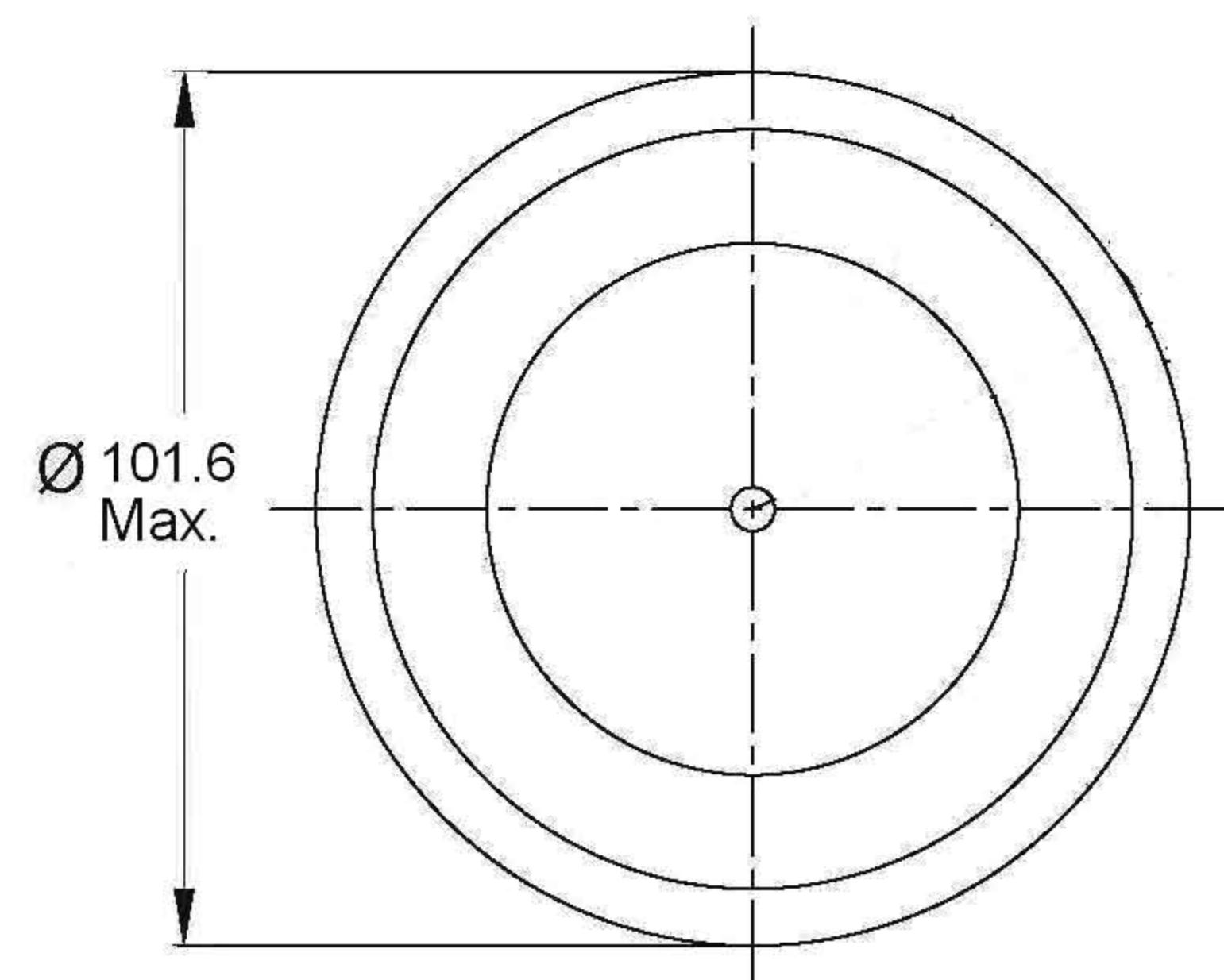
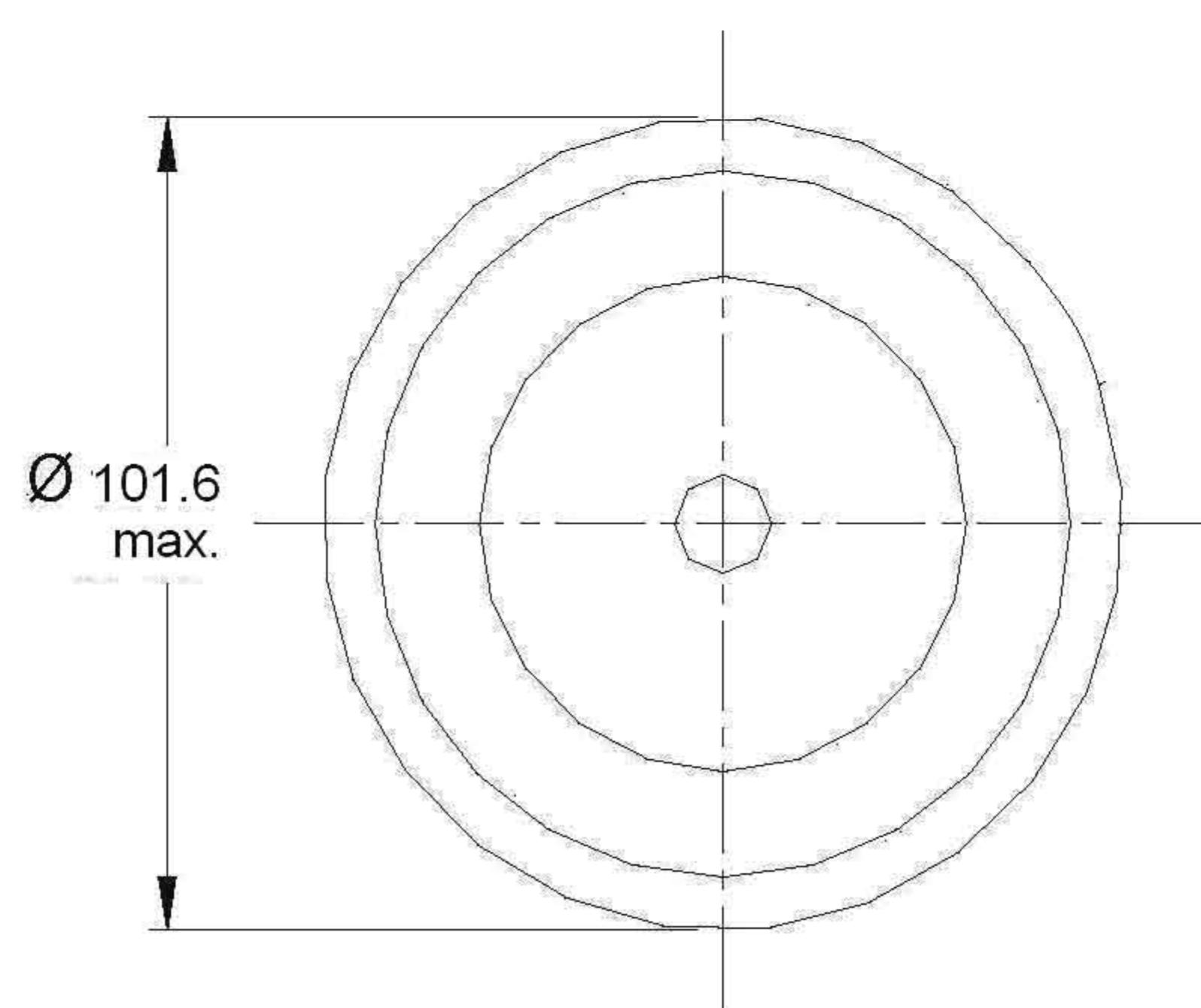
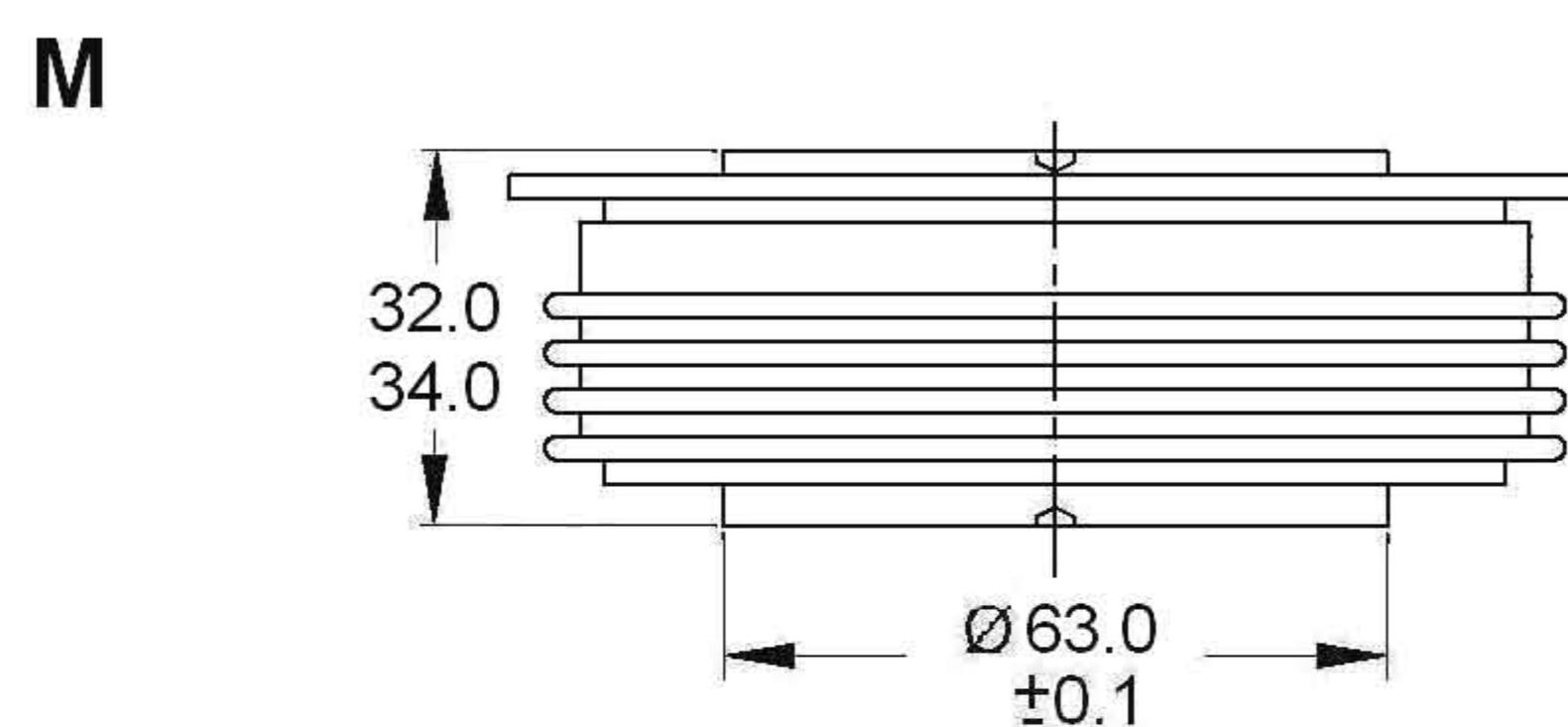
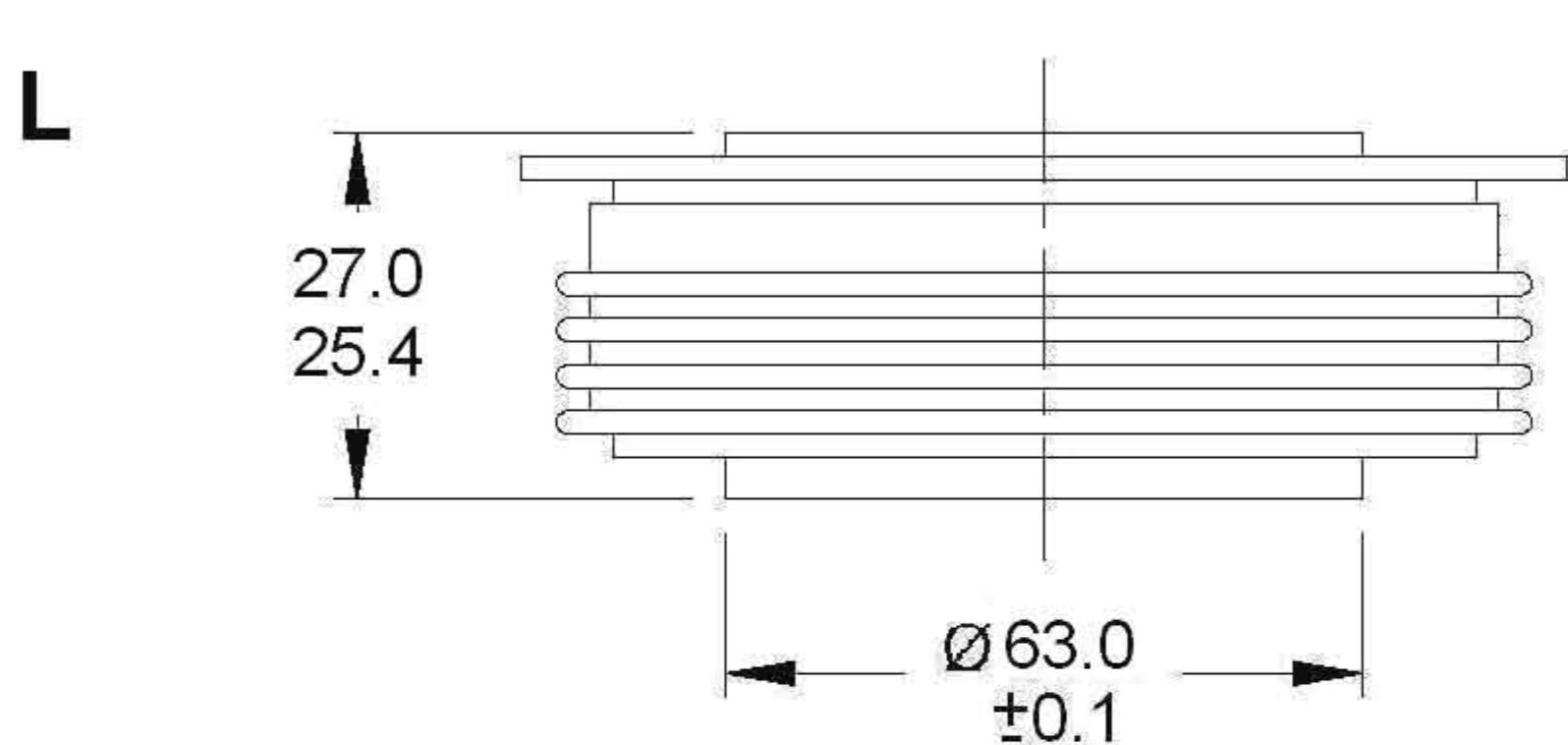
| | Parameter | R2000L/M | Units | Conditions |
|--------------|--|----------|-----------|--|
| $I_{F(AV)}$ | Max. average Forward current @ heat sink temperature | 2000 | A | 180° conduction, half sine wave double side cooled |
| | | 55 | °C | |
| $I_{F(RMS)}$ | Max. RMS Forward current | 3140 | | @55°C heat sink temperature (double side cooled) |
| | Max. peak one cycle Forward non-repetitive surge current | 21800 | | |
| I^2t | Maximum I^2t for fusing | 3265 | KA^2s | t = 10ms Sinusodial half wave, Initial $T_J = T_J$ max. |
| | | | | |
| V_{TO} | Threshold voltage | 0.96 | V | $T_J = T_J$ max. |
| r_{f1} | Forward slope resistance | 0.42 | $m\Omega$ | $T_J = T_J$ max. |
| V_{FM} | Max. Forward voltage drop | 1.45 | V | $I_{pk} = 3000A, T_J = T_J$ max., $t_p = 10ms$ sine pulse |

THERMAL AND MECHANICAL SPECIFICATION

| | Parameter | R2000L/M | Units | Conditions |
|--------------|--|------------|-------|---------------------------------|
| T_J | Max. operating temperature range | -40 to 160 | °C | |
| T_{stg} | Max. storage temperature range | -40 to 160 | | |
| R_{thJ-hs} | Max. thermal resistance, junction to heat sink | 0.017 | °C/W | DC operation double side cooled |
| F | Mounting force, | 30 | KN | |
| w t | Approximate weight | 850/1000 | g | |
| | Case style | (L/M-PUK) | | See outline |

STANDERD RECOVERY DIODE ERS

R2000L/M Series



All dimension in millimeters