

## STANDARD RECOVERY DIODES

### High Power Diodes Hockey Puk Version R 4500L/M... C Series

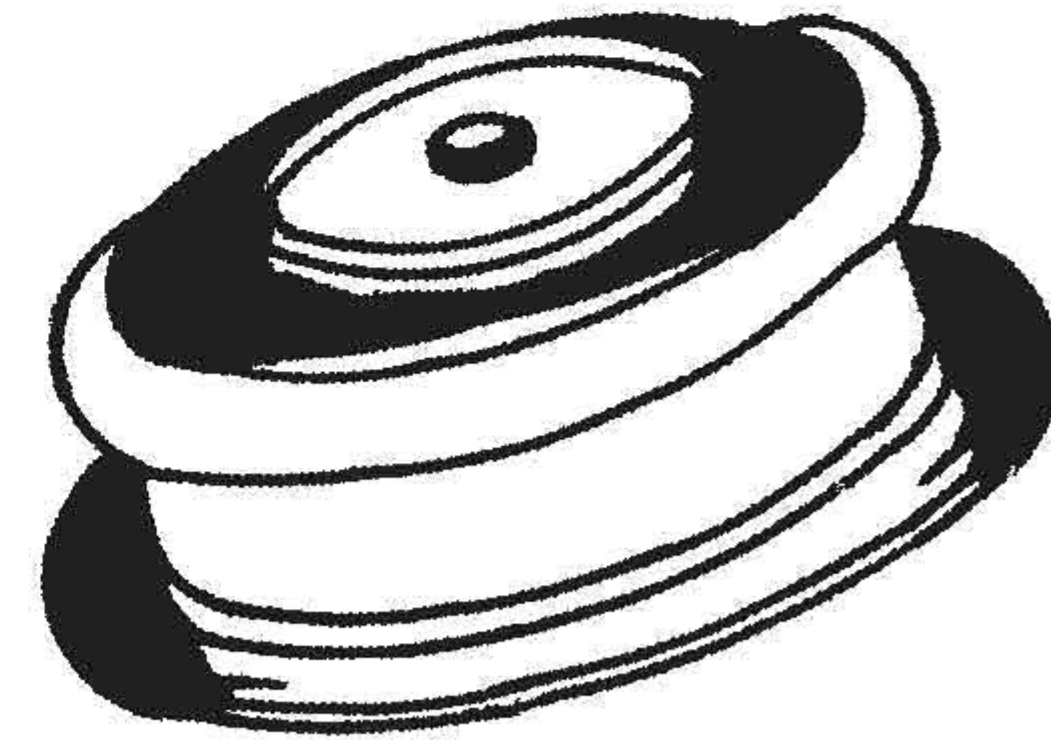
#### FEATURES

- Wide current range
- High surge current capabilities

#### TYPICAL APPLICATIONS

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

#### R 4500 (L/M-PUK)



#### MAJOR RATINGS & CHARACTERISTICS

Parameters	R4500 L/M	Units
$I_{F(AV)}$	4500	A
@ $T_{hs}$	55	°C
$I_{F(RMS)}$	7065	A
@ $T_{hs}$	55	°C
$I_{FSM}$ @ 50 Hz	52000	A
$I^2t$ @ 50 Hz	13500	KA <sup>2</sup> s
$V_{RRM}$ range	200 to 1400	V
$T_J$	-40 to 160	°C

# STANDARD RECOVERY DIODES

## R4500L/M Series

### 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. @ $T_J = T_J$ max. mA
R4500L/M	02	200	300	60
	06	600	700	
	08	800	900	
	12	1200	1300	
	14	1400	1500	

### FORWARD CONDUCTION

	Parameter	R4500L/M	Units	Conditions
$I_{F(AV)}$	Max. average Forward current @ heat sink temperature	4500	A	180° conduction, half sine wave double side cooled
		55	°C	
$I_{F(RMS)}$	Max. RMS Forward current	7065		@55°C heat sink temperature (double side cooled)
$I_{FSM}$	Max. peak one cycle Forward non-repetitive surge current	52000	A	t = 10ms Sinusoidal half wave, Initial $T_J = T_J$ max.
$I^2t$	Maximum $I^2t$ for fusing	13500	kA <sup>2</sup> s	t = 10ms
$V_{TO}$	Threshold voltage	0.65	V	$T_J = T_J$ max.
$r_t$	Forward slope resistance	0.07	mΩ	$T_J = T_J$ max.
$V_{FM}$	Max. Forward voltage drop	1.05	V	$I_{pk} = 4000A$ , $T_J = T_J$ max., $t_p = 10ms$ sine pulse

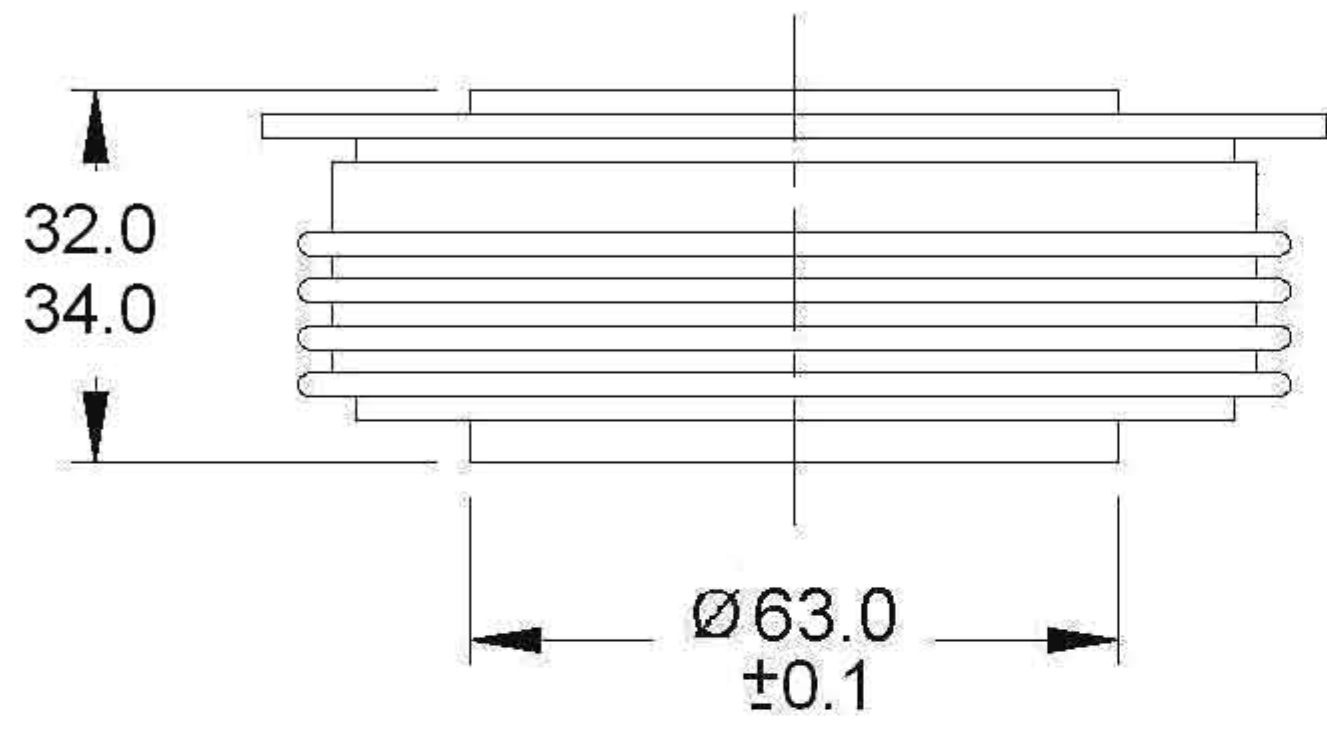
### THERMAL AND MECHANICAL SPECIFICATION

	Parameter	R4500L/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	0.016	K/W	DC operation double side cooled
F	Mounting force, ±10%	30	KN	
w t	Approximate weight	850/1000	g	
	Case style	L/M-PUK		See outline

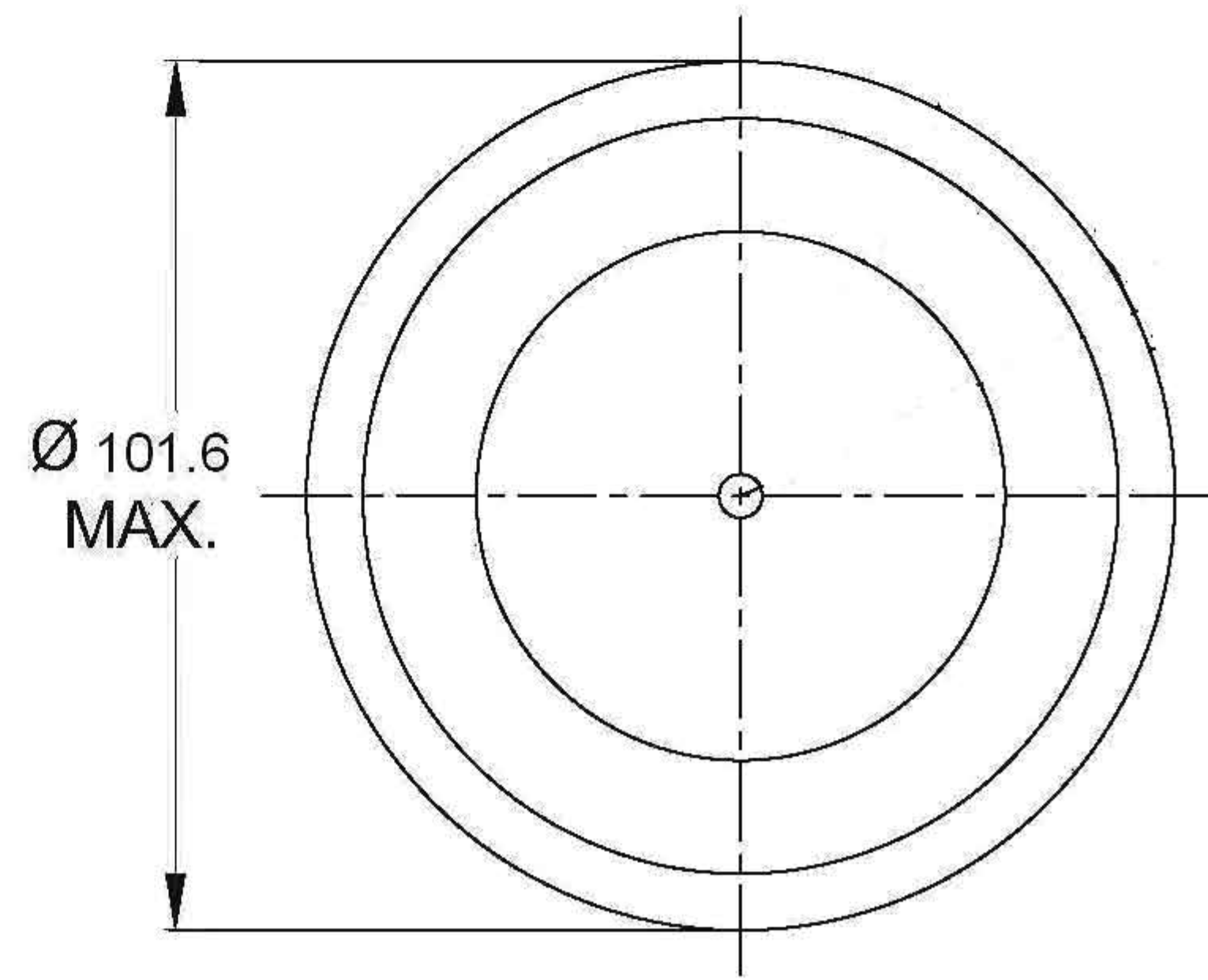
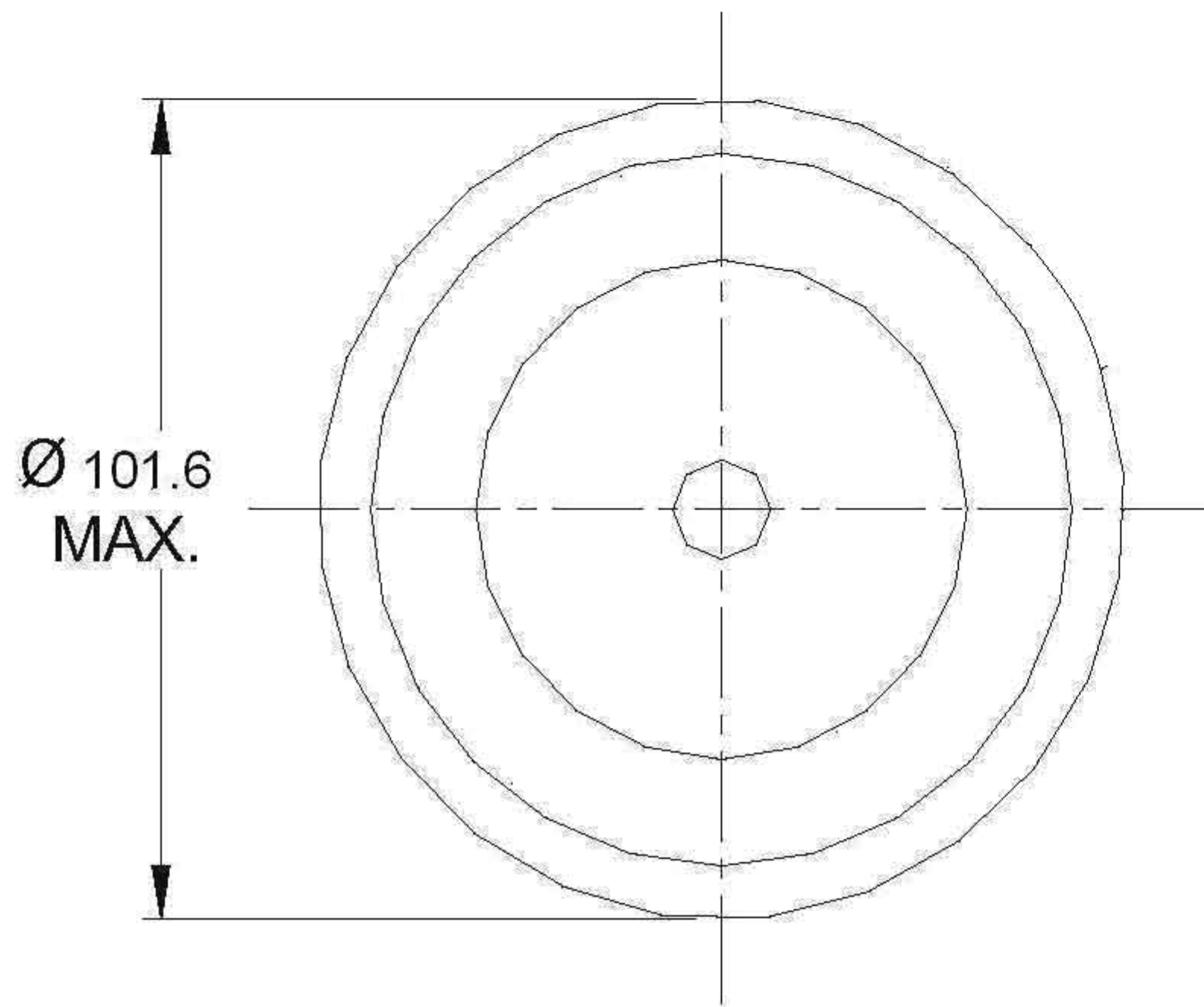
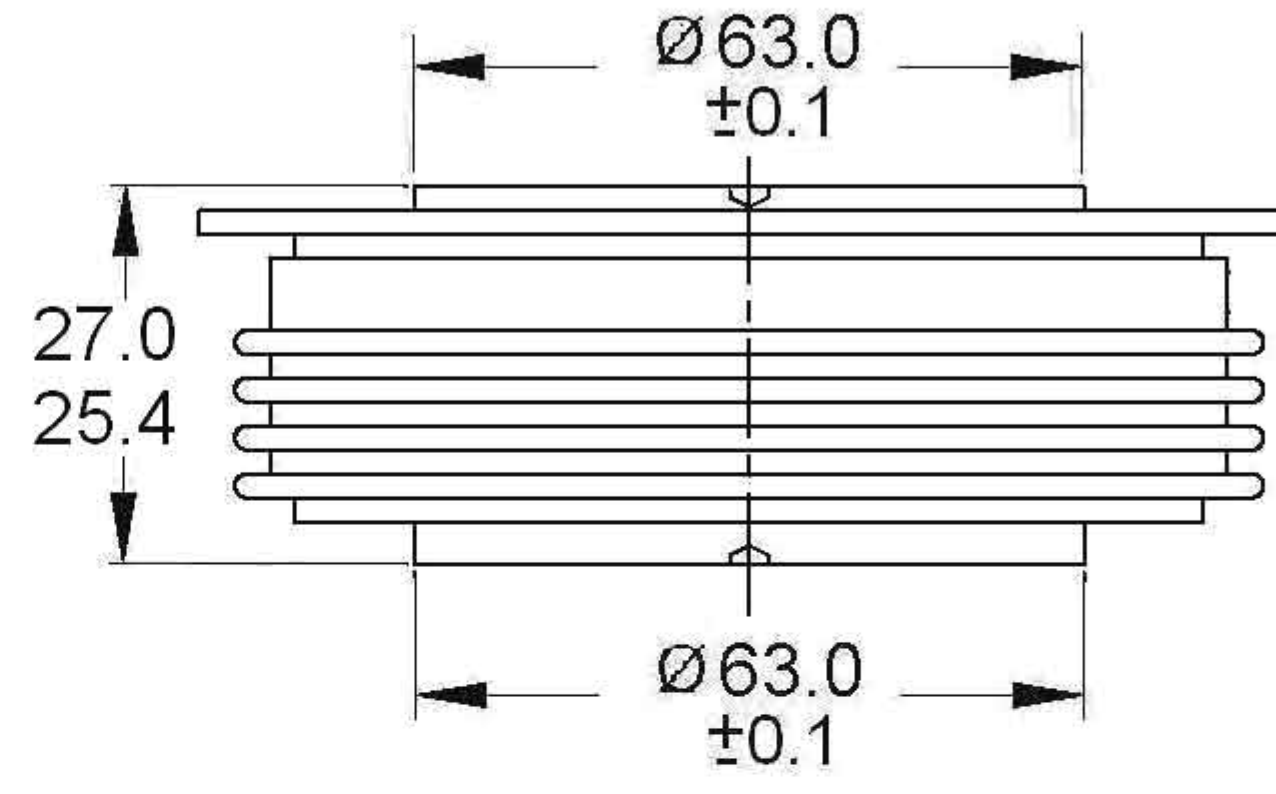
# STANDERD RECOVERY DIODE BRs

R4500L/M Series

M



L



All dimension in millimeters