

STANDARD RECOVERY DIODES

High Power Diodes Hockey Puk Version R4950 Q/R...C Series

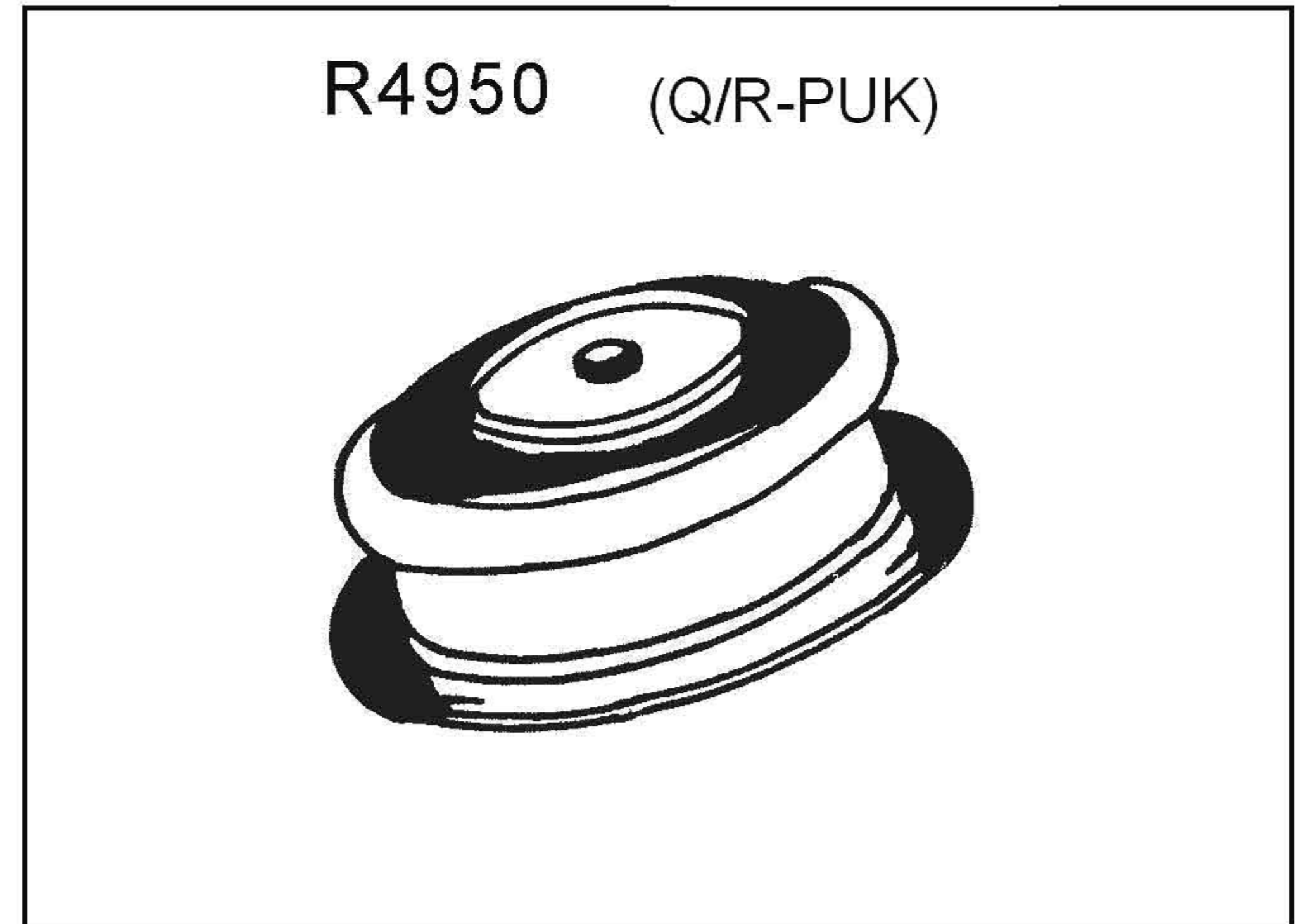
Types : R4950Q/R...

FEATURES

- ≠ Wide current range
- ≠ High voltage ratings up to 3000V
- ≠ High surge current capabilities
- ≠ Case style Q/R-PUK

TYPICAL APPLICATIONS

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



MAJOR RATINGS & CHARACTERISTICS

Parameters	R4950 Q/R	Units
$I_{F(AV)}$	4950	A
@ T_{hs}	55	°C
$I_{F(RMS)}$	7770	A
@ T_{hs}	55	°C
I_{FSM} @ 50 Hz	60000	A
I^2t @ 50 Hz	18000	KA ² s
V_{RRM} range	1600 to 3000	V
T_J	-40 to 175	°C

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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_{RRM} max. @ $T_J = T_J$ max. mA
R4950Q/R	16	1600	1700	100
	18	1800	1900	
	20	2000	2100	
	22	2200	2300	
	24	2400	2500	
	30	3000	3100	

FORWARD CONDUCTION

	Parameter	R4950Q/R	Units	Conditions
$I_{F(AV)}$	Max. average Forward current @ heat sink temperature	4950	A	180° conduction, half sine wave double side cooled
		55	°C	
$I_{F(RMS)}$	Max. RMS Forward current	7770		@55°C heat sink temperature (double side cooled)
I_{FSM}	Max. peak one cycle Forward non-repetitive surge current	60000	A	t = 10ms Sinusoidal half wave, Initial $T_J = T_J$ max.
I^2t	Maximum I^2t for fusing	18000	kA ² s	t = 10ms
V_o	Forward conduction threshold voltage	0.8	V	$T_J = T_J$ max.
r_f	Forward conduction slope resistance	0.10	mΩ	$T_J = T_J$ max.
V_{FM}	Max. peak Forward voltage drop	1.01	V	$I_{pk} = 2000A$, $T_J = 175^\circ C$ max., $t_p = 10ms$ sine pulse

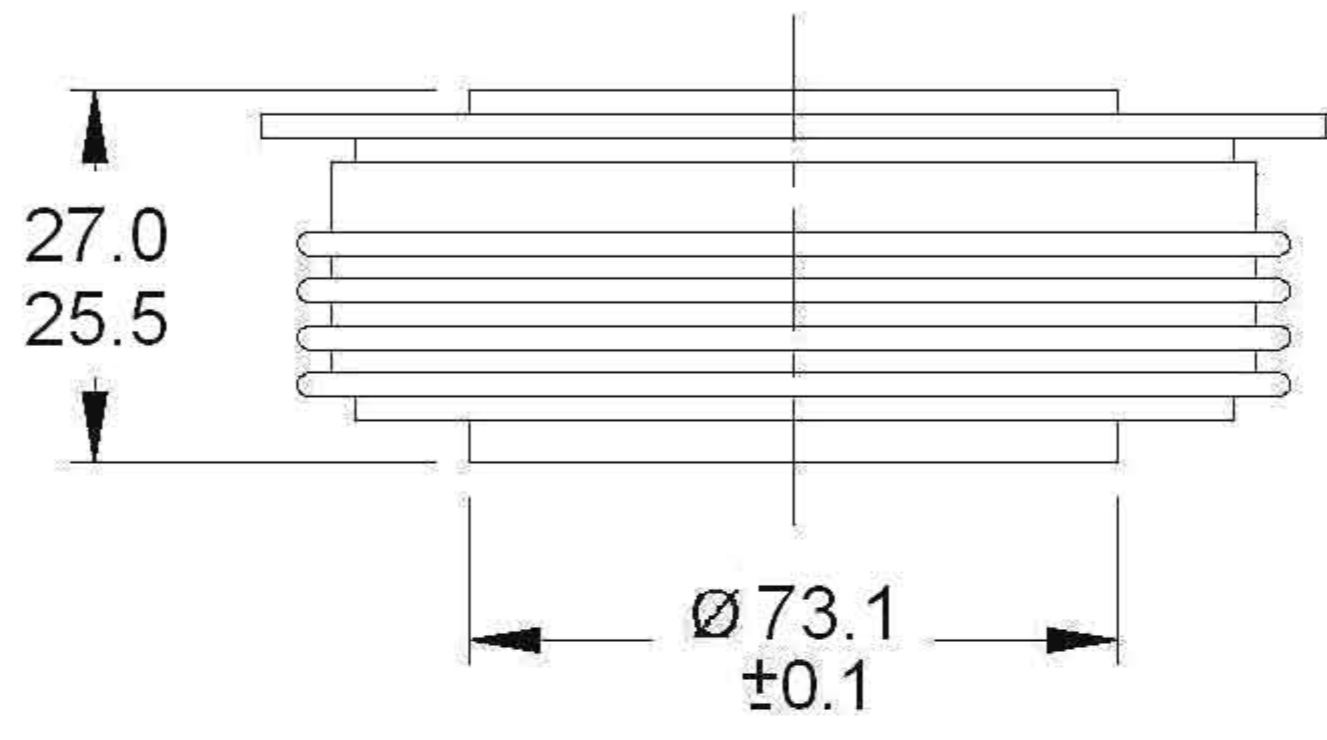
THERMAL AND MECHANICAL SPECIFICATION

	Parameter	R4950Q/R	Units	Conditions
T_J	Max. operating temperature range	-40 to 175	°C	
T_{stg}	Max. storage temperature range	-40 to 175		
R_{thJ-hs}	Max. thermal resistance, junction to heat sink	0.012	K/W	DC operation double side cooled
F	Mounting force	40	KN	
w t	Approximate weight	1050/1500	g	
	Case style	(Q/R-PUK)		See outline

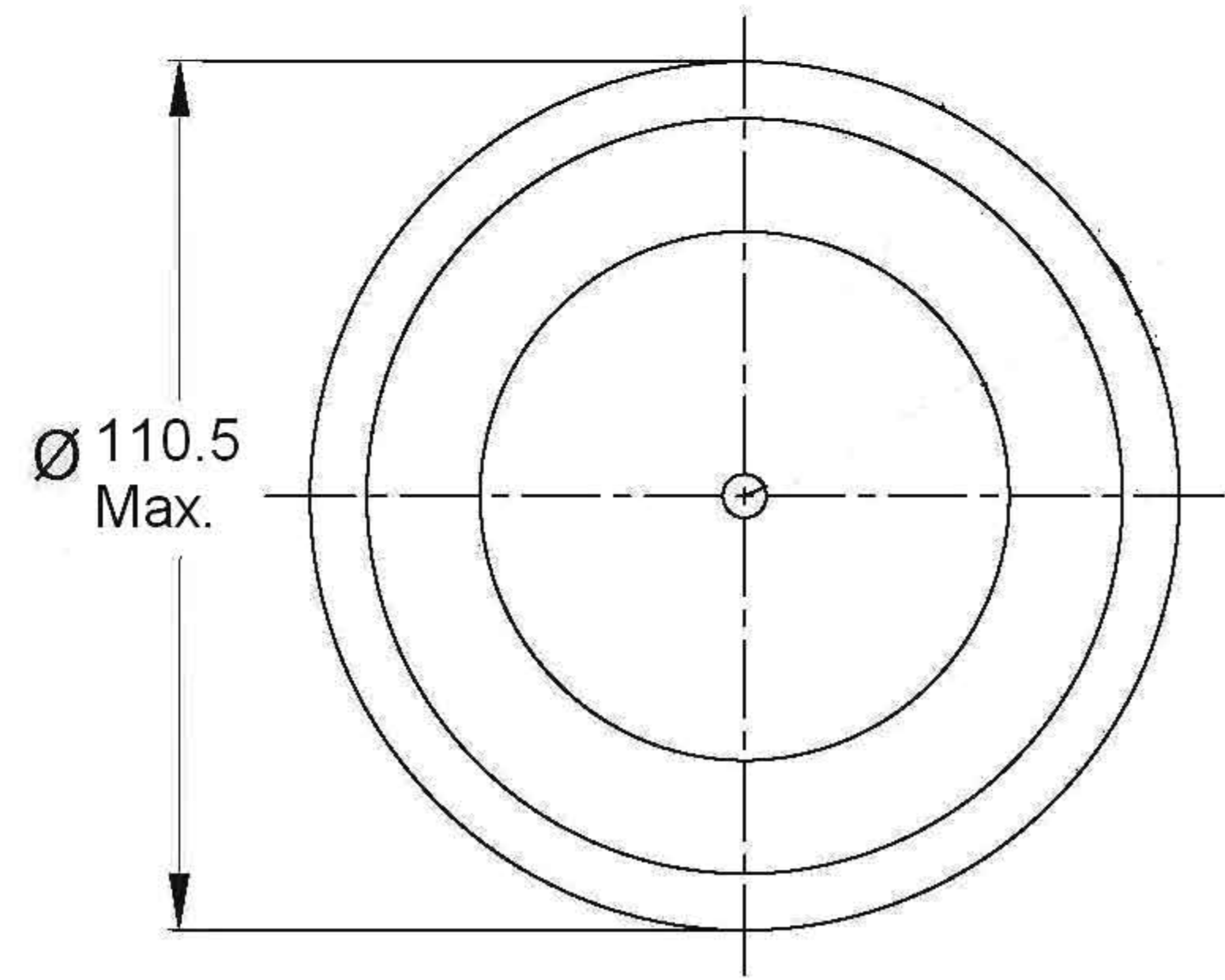
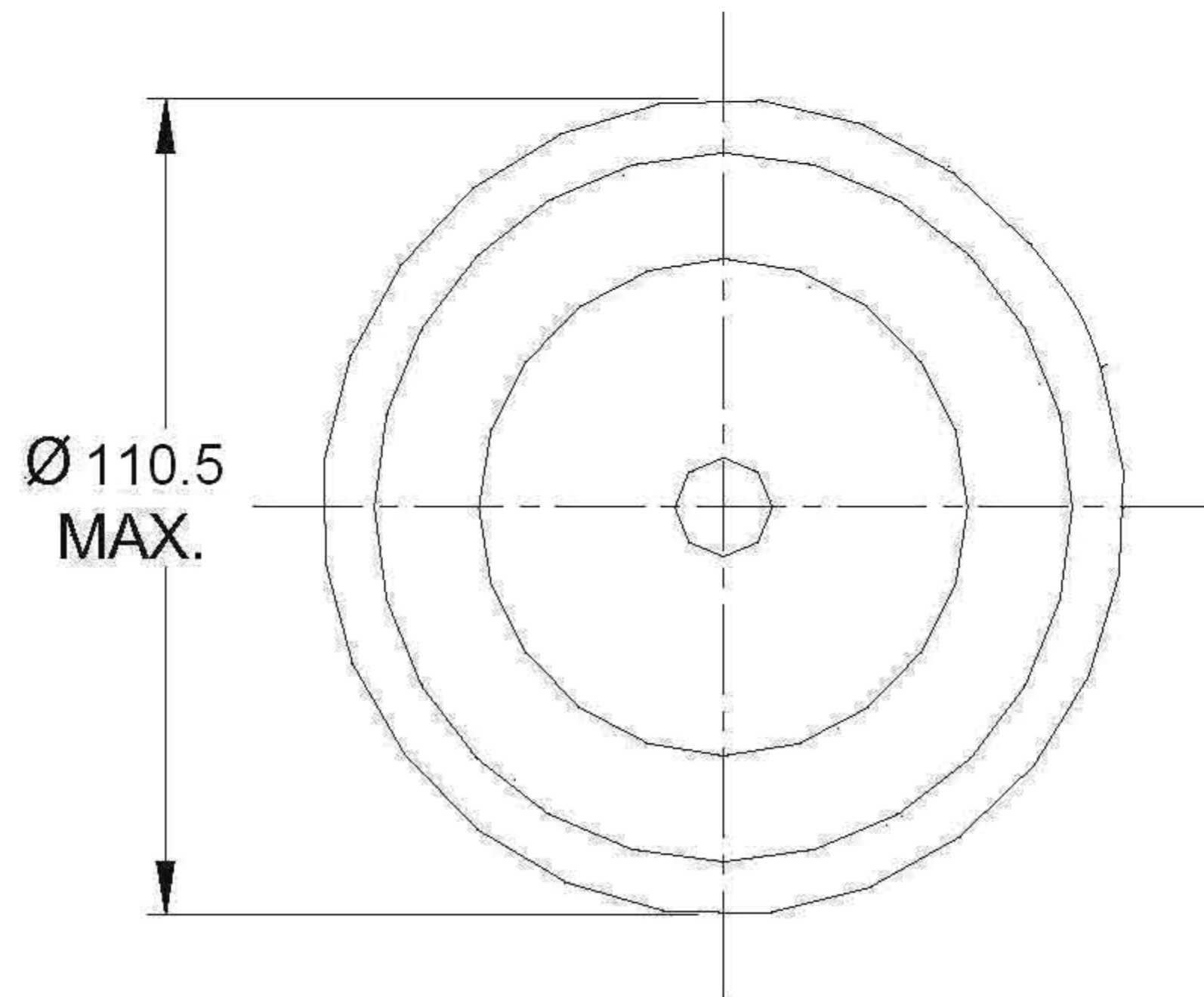
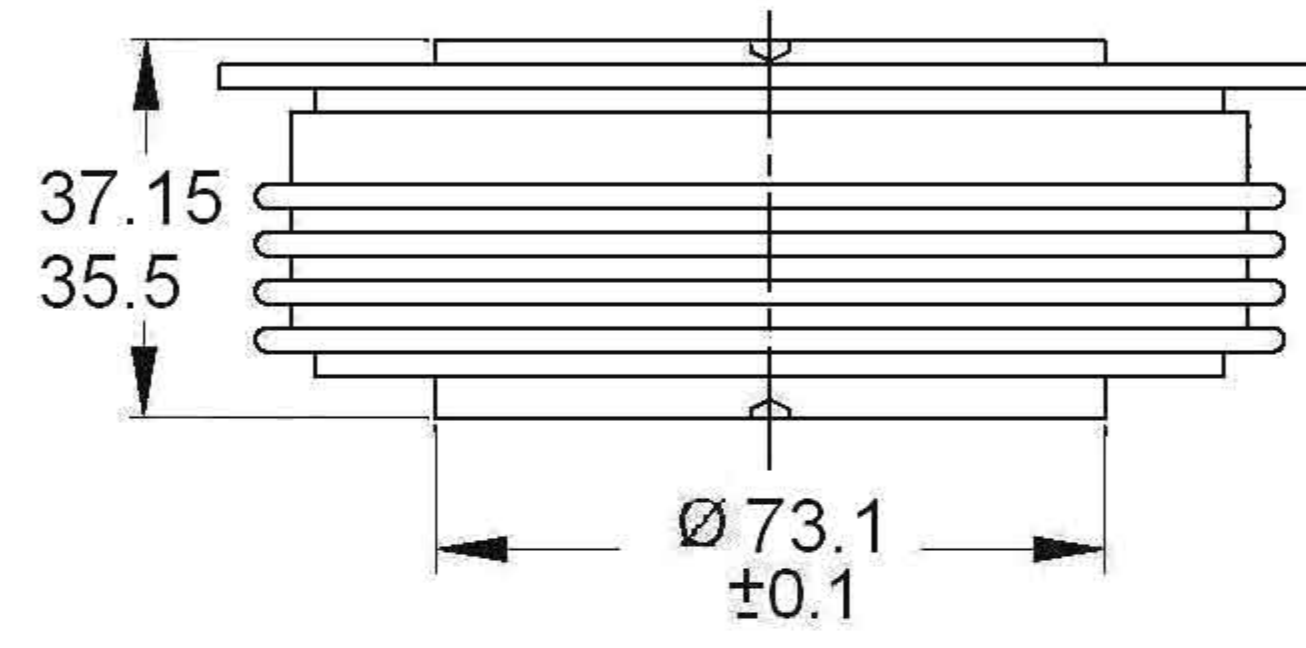
STANDERD RECOVERY DIODE

R4950Q/R Series

Q-PUK



R-PUK



All dimension in millimeters