

Image may differ from product. See technical specification for details.

BSD 3062 CGB

Super-precision single direction angular contact thrust ball bearing

These super-precision ball bearings offer very high running accuracy and are well suited for screw drive applications. They are also beneficial in other applications, where safe radial and axial support is required, together with extremely precise axial guidance of the shaft. They provide a high degree of axial stiffness and can accommodate heavy axial loads in one direction, high speeds and rapid accelerations.

- Very high running accuracy
- High axial stiffness
- High axial load carrying capacity in one direction
- Universally matchable
- Well suited for screw drive applications

Overview

Dimensions

Bore diameter	1.181 in
Outside diameter	2.441 in
Height	0.591 in
Contact angle	62 °

Performance

Basic dynamic load rating	6 407 lbf
Basic static load rating	15 961 lbf
Attainable speed for grease lubrication	8 000 r/min
Attainable speed for oil-air lubrication	9 500 r/min

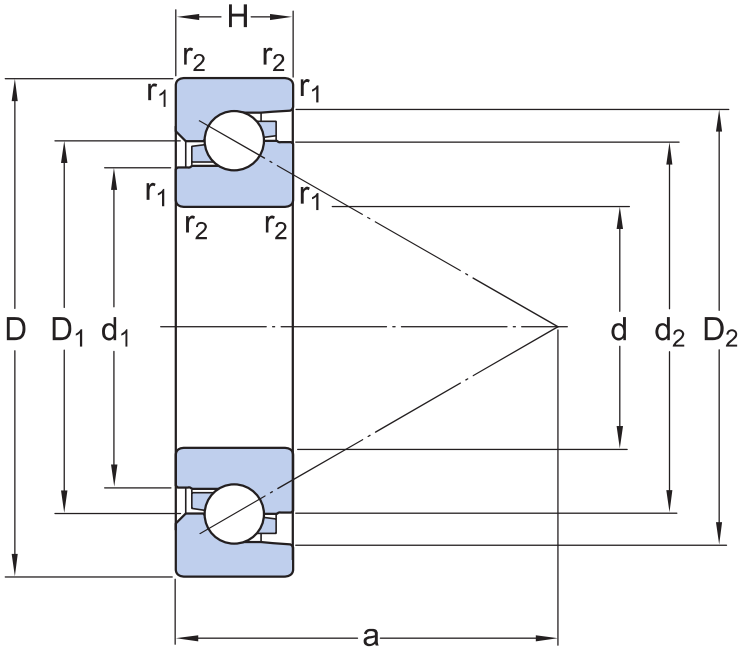
Properties

Axial load capability	Single-direction
Number of rows	1
Locating feature, bearing outer ring	None
Cage	Non-metallic
Tolerance class	Special
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Relubrication feature	Without

Logistics

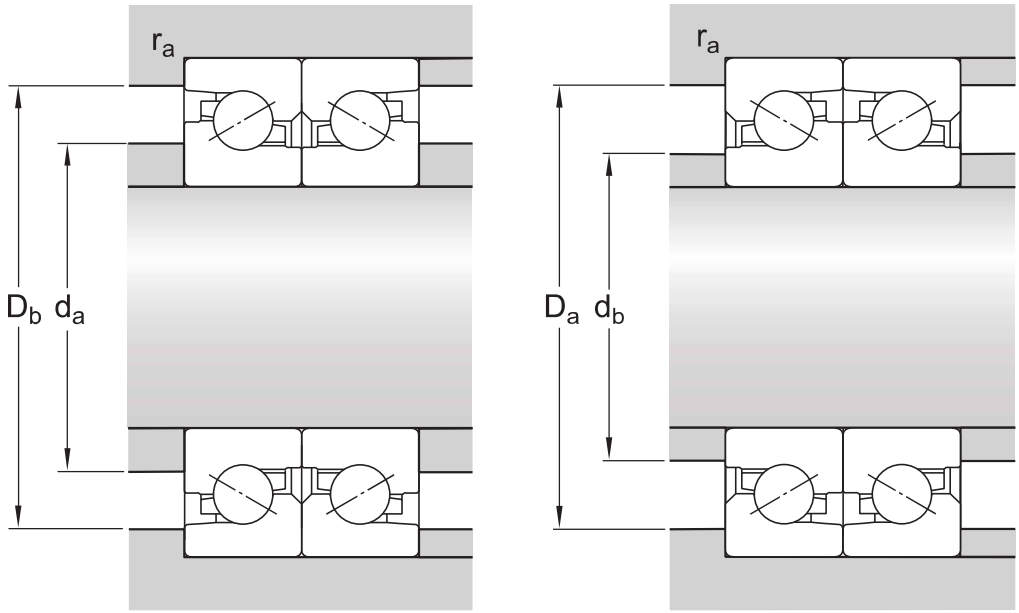
Product net weight	0.4652 lb
eClass code	23-05-08-03
UNSPSC code	31171507

Technical specification



Dimensions

d	1.181 in	Bore diameter
D	2.441 in	Outside diameter
H	0.591 in	Height
d_1	1.571 in	Shoulder diameter
d_2	1.811 in	Shoulder diameter
D_1	1.815 in	Shoulder/recess diameter
D_2	2.083 in	Shoulder/recess diameter
$r_{1,2}$	min. 0.039 in	Chamfer dimension
a	2.008 in	Distance to pressure point



Abutment dimensions

d_a	min. 1.496 in	Diameter of shaft abutment
d_b	min. 1.496 in	Diameter of shaft abutment
D_a	max. 2.244 in	Diameter of housing abutment
D_b	max. 2.244 in	Diameter of housing abutment
r_a	max. 0.039 in	Radius of housing fillet

Calculation data

Basic dynamic load rating	C	6 407 lbf
Basic static load rating	C_0	15 961 lbf
Fatigue load limit	P_u	596 lbf
Attainable speed for grease lubrication		8 000 r/min
Attainable speed for oil-air lubrication		9 500 r/min
Contact angle	α	62 °
Preload		967 lbf
Frictional moment		1.903 lbf·in
Axial stiffness for preload A (sets of two brgs back-to-back or face-to-face)		6 338 263.336 lbf/in
Maximum axial load carrying capacity	F_a	max. 5 081 lbf
Reference grease quantity	G_{ref}	0.122 in^3

More Information

Product details

- Designs and variants
- Markings on bearings
- General bearing specifications
- Preload, clearance, and stiffness
- Frictional moment
- Loads
- Attainable speeds
- Design considerations
- Mounting
- Designation system

Engineering information

- Principles of bearing selection and application
- General bearing knowledge
- Bearing selection process
- Bearing failure and how to prevent it

Tools

- SimPro Quick
- SimPro Spindle
- Bearing Frequency Calculator
- LubeSelect for SKF greases
- Heater selection tool

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