

Technical Information

No. FO 5036

Edition: 09/01 - subject to change

Substitutes: Edition --/--

Status: valid

Mercury Short Arc Lamp
for microlithography

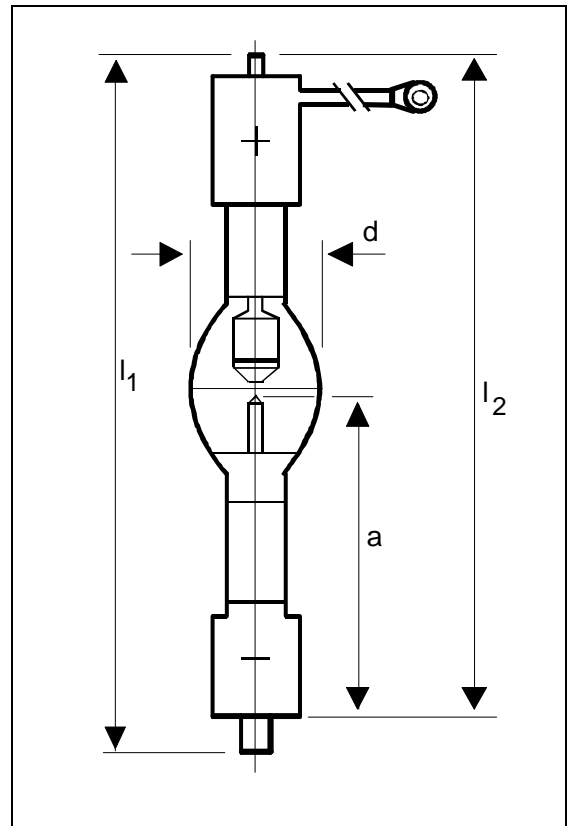
HBO[®] 3501 W/PIL (SHP)

■ Product description

The OSRAM HBO[®] 3501 W/PIL is a direct current i-line lamp for microlithography. This lamp type emits a very high radiant intensity in the ultraviolet and visible wavelength range and is developed and optimised for being used in ASML equipment (PAS 5500/400 B/C). Because of the **SHP**-technology, the lamp is characterized by a very low intensity degradation over lifetime.

■ Technical data

Order reference		HBO [®] 3501 W/PIL
Rated lamp wattage	W	3.400
Rated lamp voltage	V	23
Rated lamp current (=)	A	148
Ignition voltage (cold)	kV _s	max. 20
Radiant intensity (wave length range 365 ± 2,5 nm)	mW/sr	9.000
Electrode gap e	mm	4,5
Lamp length l ₁	mm	max. 360
Lamp length l ₂	mm	312,5 / max. 315
Bulb diameter d	mm	77
LCL a	mm	154
Average service life	h	1500
Base		<ul style="list-style-type: none">• Cathode: SFc 32,5-6,7/50• Anode: SFaX 40-6/50 with cable connection (M10)



■ Lamp operation

Maximum permissible base temperature	°C	200
Cooling		Forced base cooling
Burning position		Vertical, anode up

■ Safety Instruction

Because their high luminous efficacy, the UV radiation which they emit and the high pressure within the lamp, HBO[®] lamps may only be operated within enclosed, purpose-built housings. When a lamp breaks, mercury is released. Particular safety regulations should be paid attention (for details please request technical information sheet no. FO 4574).