

Technical Information

No. FO 4654

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Mercury Short Arc Lamp
for Microlithography

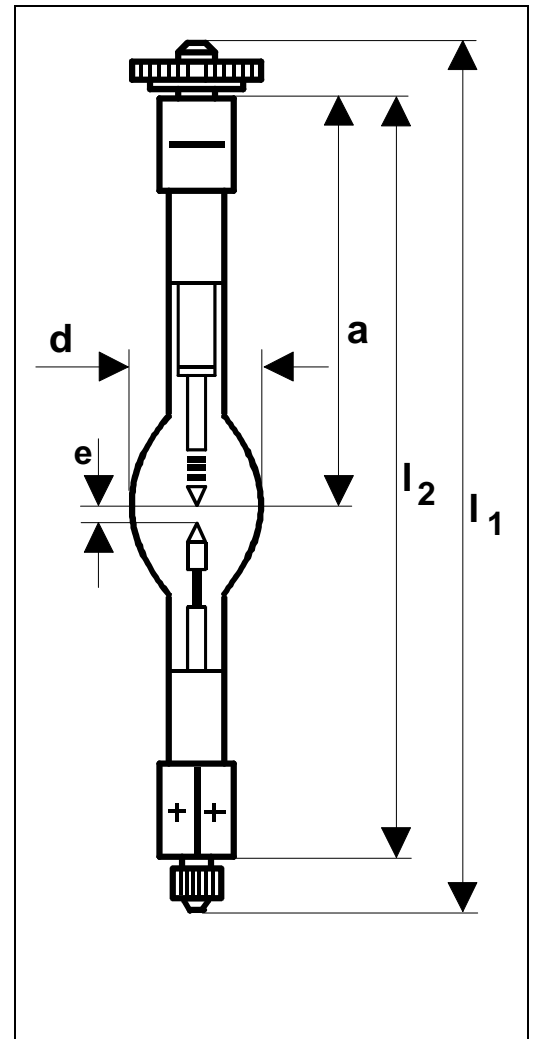
HBO[®] 1000 W/CEL

■ Product description

The OSRAM HBO[®] 1000 W/CEL is a mercury short arc lamp designed for the manufacturing of integrated circuits (microchips). This lamp type emits a very high radiant intensity in the ultraviolet and visible wavelength range and is optimized for use in Canon stepper machines (FPA Mark I, Mark II). The HBO[®] 1000 W/CEL stands out due to its long service life of 2.500h. The lamp is suited for constant power operation and for pulse mode operation.

■ Technical data

Order reference	HBO [®]	1000 W/CEL
Rated lamp wattage (constant power operation)	W	max. 750
Rated lamp wattage (pulse mode operation)	W	700 / 1,000
Rated lamp voltage	V	47
Rated lamp current (=)	A	16
Ignition voltage (cold)	kV _s	max. 15
Radiant power (wave length range 350 ... 450 nm)	W	85.4
Radiant intensity (wave length range 350 ... 450 nm)	mW/sr	8,300
Electrode gap e	mm	3
Lamp length (overall) l ₁	mm	max. 175
Lamp length l ₂	mm	155 / max. 157
Bulb diameter d	mm	28
LCL a	mm	78.5
Guaranteed life	h	2,500



Base	• Cathode: SFc 15-6/20 with thread M6 • Anode: SXFc 15-6/20 Hexagon base with thread M6
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■ Lamp operation

Maximum permissible base temperature	°C	230
Cooling	Convection	
Burning position	vertical, Anode (+) underneath	

■ Safety Instruction

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

