

ABSTRACT

There are provided a reflective photomask and a reflective photomask blank having a high contrast of a minute pattern to an inspection light and capable of minimizing the shadowing effect in EUV exposure. A reflective photomask blank (100) of this embodiment includes: a substrate (11); a reflective part (17); and a low reflective part (18), in which the low reflective part (18) is a multi-layer structural body having at least two or more layers including an absorption layer (14) and an outermost layer (15), an extinction coefficient k to a wavelength of 13.5 nm of the absorption layer (14) is $k > 0.041$, and the film thickness of the low reflective part (18) is a film thickness satisfying $0.5 \times d_a + d_c \leq 21.5$ nm or a film thickness satisfying $0.5 \times d_a + d_c \geq 27.5$ nm, wherein the film thickness of the absorption layer (14) is d_a and the film thickness of the outermost layer (15) is d_c .

FIG. 1