

Prism

Mirror

Window

Beamsplitter

Waveplate

**IR Optics**

Lens

Filter

Micro Optics

Plastic Optics

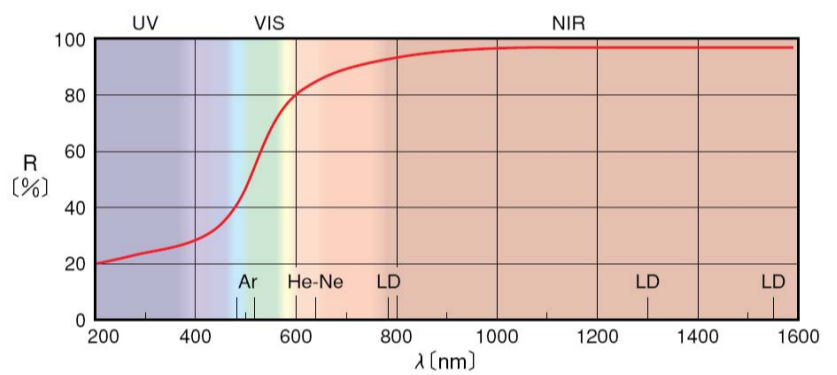
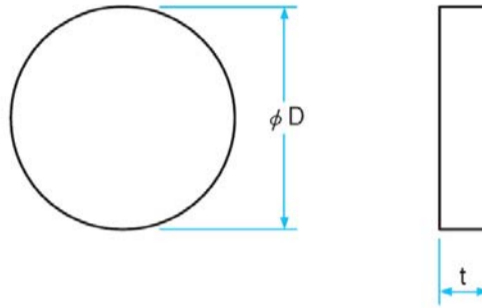
## Gold Flat Mirror Silicon

### Introductions



Total reflection mirrors coated with gold (Au) that has high reflectance in a wide range of infrared. Chromium (Cr) is slightly undercoated to reinforce adhesion of gold to the substrate. Gold mirrors of silicon substrates have higher durability than glass substrates because gold coating adheres to silicon much stronger and silicon substrate has higher thermal conductivity.

### Beam Path



### Standard Specifications

Items	Specifications
Material	Silicon (Si)
Density	2.33g/cm <sup>3</sup>
Heat Transfer Coefficient	148 W/m · K
Dimension Tolerance	+0.0/-0.2 mm
Thickness Tolerance	± 0.2 mm
Clear Aperture	> 90%
Parallelism	< 30 arc seconds
Flatness	$\lambda/10$ at 632.8 nm (Substrate)
Surface Quality	scratch and dig 40-20
Bevel	0.5 (0/-0.3) mm
Rear Surface	Ground
Coating	Cr+Au
Reflectivity	Ravg ≥ 99%

#### Notes:

- Beside the material Silicon, the material BK7 is available.
- Please show us the size, surface quality, flatness and the coating specification.

Part NO.	D(mm)	t(mm)
IMS0101	30.0	3.0
IMS0102	40.0	4.0
IMS0103	50.0	5.0

Gold Flat Mirror Silicon

Optical Components

IMS 01