Optical Grade Silicon Wafers

Product Description:

Although silicon is primarily for semiconductor applications, it is also the most economic IR material. Silicon can produced as either mono or polycrystalline form by Czochralski crystal growth method or float zone method. CZ Silicon is cheaper. But it contains some oxygen that induces an absorption band at 9 microns. Optical grade silicon is generally lightly doped, and has a very good transmission from 1.2um to 7um. Dopant is usually boron (p-type) or phosphorus (n-type), and both types are acceptable for IR applications.

Besides optical grade silicon wafer, we also offer silicon wafer to SEMI standards for other applications as well.

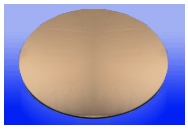

Figure 1: Optical Grade Silicon Wafers

Specification:

Crystal Growth Method	**Czochralski (CZ) or Float Zone (FZ) Method**
Orientation	**<111>, <100> or Random Orientation**
Diameter	**2 Inches, 3 Inches, 5 Inches, 6 Inches**
P type Dopant	**Typical Boron**
P type Resistivity	**Typical 5 ~ 100 ohm/cm**
N type Dopant	**Typical Phosphorus**
N type Resistivity	**Typical > 10 ohm/cm**
Thickness	**500±30μm, 1000±50μm**
Surface Quality	**80/50**