

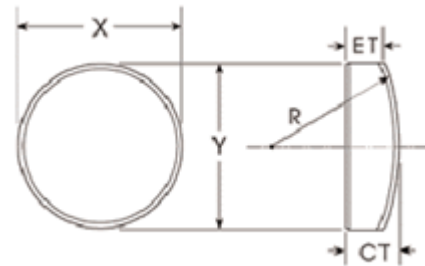
# GERMANIUM(Ge) PLANO-CONVEX LENSES

Germanium plano-convex lenses have a very low absorption in the infra-red. Positive focusing Germanium lenses are perfect for thermal imaging and Carbon Dioxide laser focusing applications.

We supply uncoated but a range of anti-reflection coatings can be applied as well.

## Standard Specifications:

|                               |                                       |
|-------------------------------|---------------------------------------|
| <b>Optical Material:</b>      | High quality single-crystal Germanium |
| <b>Diameter Tolerance:</b>    | +0.0, -0.15mm                         |
| <b>Design Wavelength:</b>     | 10.6um                                |
| <b>Design Index:</b>          | 4.0028 at 10.6um                      |
| <b>Paraxial Focal Length:</b> | ±2%                                   |
| <b>Centration:</b>            | 3 arc minutes                         |
| <b>Clear Aperture:</b>        | >85%                                  |
| <b>Surface Quality:</b>       | 60-40 scratch and dig                 |
| <b>Wavefront Distortion:</b>  | lambda/2 at 632.8nm                   |
| <b>Bevel:</b>                 | <0.25mm X 45°                         |
| <b>Coating:</b>               | available upon request                |



## Standard Germanium Plano-Convex Lenses:

| Dia(mm) | f(mm) | R1(mm) | tc(mm) | te(mm) | Product Number |
|---------|-------|--------|--------|--------|----------------|
| 25.40   | 38.10 | 114.40 | 3.7    | 3.0    | UQT-PLCXG0501  |
| 25.40   | 50.80 | 152.54 | 3.5    | 3.0    | UQT-PLCXG0502  |
| 25.40   | 63.50 | 190.68 | 3.4    | 3.0    | UQT-PLCXG0503  |
| 25.40   | 76.20 | 228.81 | 3.3    | 3.0    | UQT-PLCXG0504  |
| 28.00   | 38.10 | 114.40 | 3.8    | 3.0    | UQT-PLCXG0505  |
| 28.00   | 50.80 | 152.54 | 3.6    | 3.0    | UQT-PLCXG0506  |
| 28.00   | 63.50 | 190.68 | 3.5    | 3.0    | UQT-PLCXG0507  |
| 28.00   | 127.0 | 381.35 | 3.3    | 3.0    | UQT-PLCXG0508  |
| 38.10   | 50.80 | 152.54 | 7.2    | 6.0    | UQT-PLCXG0509  |
| 38.10   | 63.50 | 190.68 | 6.9    | 6.0    | UQT-PLCXG0510  |
| 38.10   | 76.20 | 228.81 | 6.8    | 6.0    | UQT-PLCXG0511  |
| 38.10   | 127.0 | 381.35 | 6.5    | 6.0    | UQT-PLCXG0512  |
| 38.10   | 190.5 | 572.03 | 6.3    | 6.0    | UQT-PLCXG0513  |

Please Contact [ultiQuest](#) for other dimensions in prototype and production quantities.

## NOTES!

- ➔ Germanium is susceptible to thermal runaway, being non-transmissive at 200°C.
- ➔ Be sure to wear laser safety goggles when checking optical path and adjusting optical axis.

