

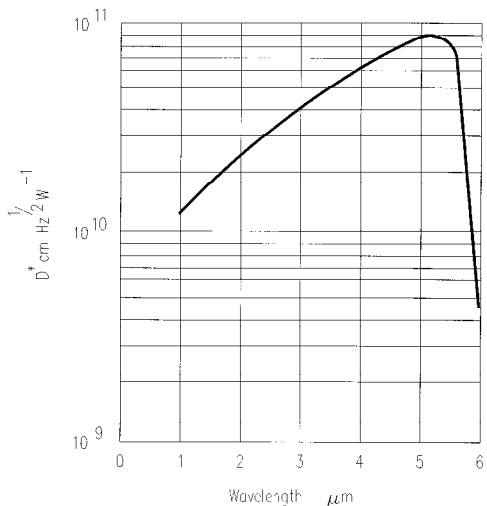
# OL 740-18 and OL 740-19 Infrared Detector Modules

## OL 740-18 InSb Detector

The OL 740-18 InSb Detector is a high-sensitivity infrared detector for use over the 1.0 to 5.5  $\mu\text{m}$  wavelength region. It has a peak response at 5.2  $\mu\text{m}$ . For optimum performance, the detector is operated in the photovoltaic (zero bias) mode and liquid nitrogen ( $\text{LN}_2$ ) cooled to 77K. The 2 mm diameter detector element is mounted in a metal, side viewing dewar with metal-to-metal seals for high vacuum integrity and reliability. The dewar is mounted in an anodized aluminum housing with a standard 1.5 inch detector port,  $\text{CaF}_2$  field lens, and BNC signal connector.

## OL 740-18 SPECIFICATIONS

Operating Temperature ..... 77K  
 $D^*\text{Peak}, 163.4 \text{ Hz} \dots\dots\dots 9 \times 10^{10} \text{ cmHz}^{1/2}\text{W}^{-1}$   
 Wavelength Region ..... 1 to 5.5  $\mu\text{m}$   
 Peak Wavelength ..... 5.2  $\mu\text{m}$   
 Dynamic Impedance ..... 500K  
 Area ..... 2 mm diameter  
 Window ..... Sapphire  
 Field Lens (focal length) ..... 12.7 mm  
 Field of View ..... 60° cold aperture  
 Dewar Hold Time ..... 6 hours



## OL 740-19 HgCdTe Detector

The OL 740-19 Mercury Cadmium Telluride Detector is optimized for use over the 8.0 to 14.0  $\mu\text{m}$  wavelength region; however, it can be used to wavelengths as low as 1  $\mu\text{m}$ . Other versions of the OL 740-19 can be supplied which are sensitive out to 22  $\mu\text{m}$ . The biased HgCdTe detector has a low impedance and is operated in the photoconductive mode with an AC coupled, ultra low-noise preamp (OL 740-19A). The 2 x 2 mm detector element is mounted in a metal, side viewing dewar with metal-to-metal seals for high vacuum integrity and reliability. The dewar is mounted in an anodized aluminum housing with a standard 1.5 inch port, KBr field lens, and BNC signal connector.

## OL 740-19 SPECIFICATIONS

Operating Peak ..... 77K  
 $D^*\text{Peak}, 163.4 \text{ Hz} \dots\dots\dots 1 \times 10^9 \text{ cmHz}^{1/2}\text{W}^{-1}$   
 Wavelength Region ..... 1 to 14  $\mu\text{m}$   
 Peak Wavelength ..... 13  $\mu\text{m}$   
 Resistance ..... 350 ohm (77K)  
 Area ..... 2 x 2 mm  
 Window ..... KRS-5  
 Field Lens (focal length) ..... 12.7 mm  
 Field of View ..... 60° cold aperture  
 Dewar Hold Time ..... 6 hours

