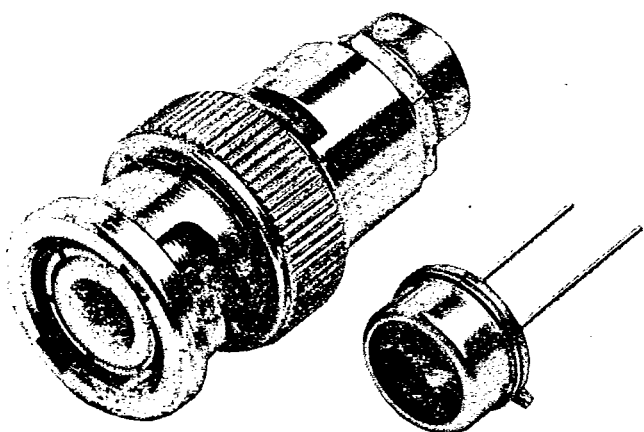


ROOM TEMPERATURE LASER DETECTORS



TYPICAL APPLICATIONS

- Detection of CO₂ laser radiation
- Industrial measurements
- Distance measurements
- Process control
- Laser diagnostics

Model No.	*D	Size	Responsivity	Resistance
HCTL-R-5A	10 ⁶	1x1mm ↑ ↓	50mVw	30-70Ω ↑ ↓
HCTL-R-5B	10 ⁷		150mVw	
HCTL-R-HA	5x10 ⁵		25mVw	
HCTL-R-HB	10 ⁸		50mVw	

Model HCTL-R are mercury cadmium telluride (MCT) photoconductive detectors designed to work at ambient temperature. They are the best choice for the detection of LWIR radiation without cooling requirements. Typical *D range at 10.6 μm is 10⁶ to 10⁷ W⁻¹ cm Hz^{1/2} with a responsivity of 50 to 150 mV/w. The active area is 1mm² and overall package is capable of handling 1W/mm² of radiant power (CW).

Room temperature MCT detectors work in sub-background limited conditions, however their performance can be enhanced using special optimization technique and can operate at frequencies up to 100MHz. Some of their features are: ambient temperature operation, high sensitivity at 10.6 μm , mechanical endurance, short response time, high reliability and simplicity.

Model HCTL-R-5 is sealed in the TO-5 package filled with inert gas. This external detector package must be mounted on a heat sink to provide efficient heat transfer and can dissipate power up to 0.5 W.

Model HCTL-R-H is mounted on a copper heat sink, which is part of a BNC connector and external heat sink. Other types of connectors are available on request.

Standard windows for these devices are (antireflection coated) germanium and calcium fluoride. Other materials are available on request.

TYPICAL RELATIVE RESPONSE

