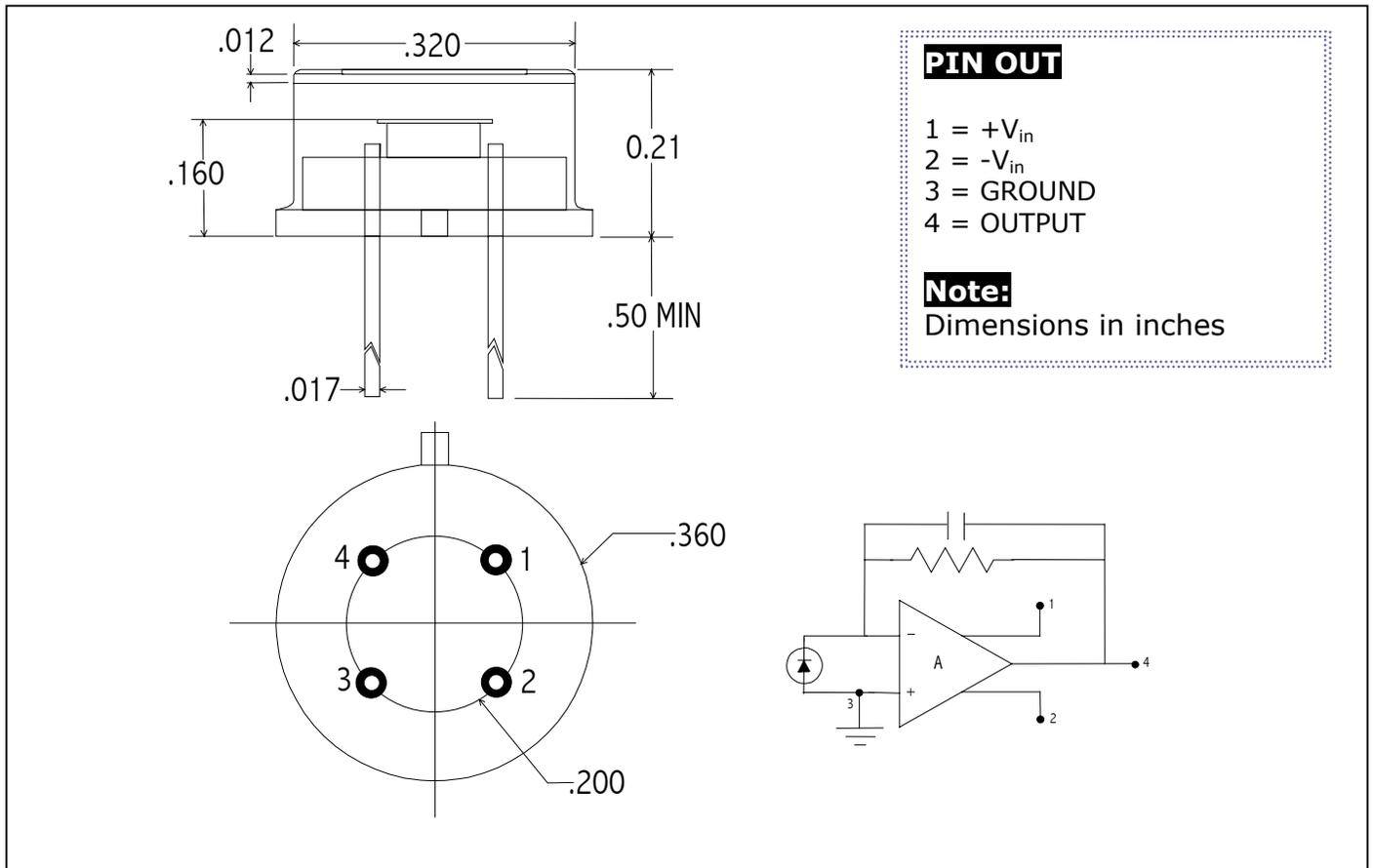


## E5 - SERIES TO - STYLE RECEIVERS



**Application Note** The preamplifier portion of this receiver is a transimpedance current to voltage converter. Its output voltage is proportional to the input signal current:

$$V_{out} = I_{signal} \times R_{feedback}$$

This photodiode/amplifier is a DC coupled, high gain system and care should be taken to shield the unit from stray light during operation. This will help prevent saturation of the amplifier, which could lead to failure of the unit. Obtaining stable, long term operation will require suitable heat sinking.

### SPECIFICATIONS

Detector Type	2mm Dia InGaAs Photodiode		
Wavelength Range	900 – 1700 nm		
Part Number	<b>IGA-020-E5/1k</b>	<b>IGA-020-E5/10k</b>	<b>IGA-020-E5/1M</b>
Output Responsivity, V/W	<b>10<sup>8</sup> @ 1300nm</b>	<b>10<sup>6</sup> @ 1300nm</b>	<b>10<sup>5</sup> @ 1300nm</b>
Output Noise, V/Hz <sup>1/2</sup>	<b>5.0 x 10<sup>-6</sup></b>	<b>0.4 x 10<sup>-6</sup></b>	<b>0.25 x 10<sup>-6</sup></b>
Bandwidth	<b>DC – 1kHz</b>	<b>DC – 10kHz</b>	<b>DC – 1MHz</b>
Power Requirements	<b>+,- 5VDC to +,- 15VDC, 10 mA</b>		