



### HYBRID EYESAFE LASER RANGEFINDER RECEIVER

- HIGH SENSITIVITY
- HERMETIC TO-8 PACKAGE, 0.1 CU INCH
- FAST RECOVERY – LOW MINIMUM RANGE
- InGaAs PIN DETECTOR
- SINGLE SUPPLY
- FIELD PROVEN PERFORMANCE



#### DESCRIPTION:

The **Model 754** hybrid eyesafe laser rangefinder receiver is designed for laser ranging/surveying equipment. Because of the compact construction (Modified TO-8 header) and the PCB mounting capability, the **Model 754** is ideal for miniature applications. Fast recovery from  $T_o$  overload allows ranging to close objects without compromising long range performance.

#### SPECIFICATIONS:

<b>Detector</b>	1.54 $\mu$ m, InGaAs PIN, 300 $\mu$ m +60/-30 $\mu$ m $\varnothing$	<b>Outputs</b>	TTL or CMOS compatible, negative logic. Start/Stop on common line. $\geq$ 40ns pulses. 470 $\Omega$ pull up to +5V. Maximum sink current 2mA.
<b>Sensitivity</b>	50nW typical at 1.54 $\mu$ m, 28ns pulse, 50% detection, 0.1% FAR, 20°C, degrades with narrower pulses.	<b>Alignment</b>	Analog test point for alignment (pin 2 or 8)
<b>T<sub>o</sub> Pulse</b>		<b>Power</b>	+12 $\pm$ 0.5VDC at 25mA typical
Optical	>0.1mW or	<b>Temperature</b>	
Electrical	Pull output to zero for 100ns. An open-drain FET is recommended.	Operating	-45° to +85°C
		Storage	-55° to +125°C
<b>Time Programmed Gain (TPG)</b>		<b>Connections</b>	PCB mount, pins With optional PCB (Add -PCB to part number.)
	1/R <sup>2</sup> law operates from minimum range of ~20m to 2km with separate Tx/Rx optics. Minimum range ~200m with 20mW T <sub>o</sub> pulse. 0.7V or open enables TPG. 0V or GND inhibits TPG and holds low gain.	<b>Size</b>	0.6" $\varnothing$ x 0.425"
<b>Adjustments</b>	Trigger level is adjustable to allow a change in signal-to-noise ratio.		

Specifications subject to change without notice.



#### APPLICATIONS:

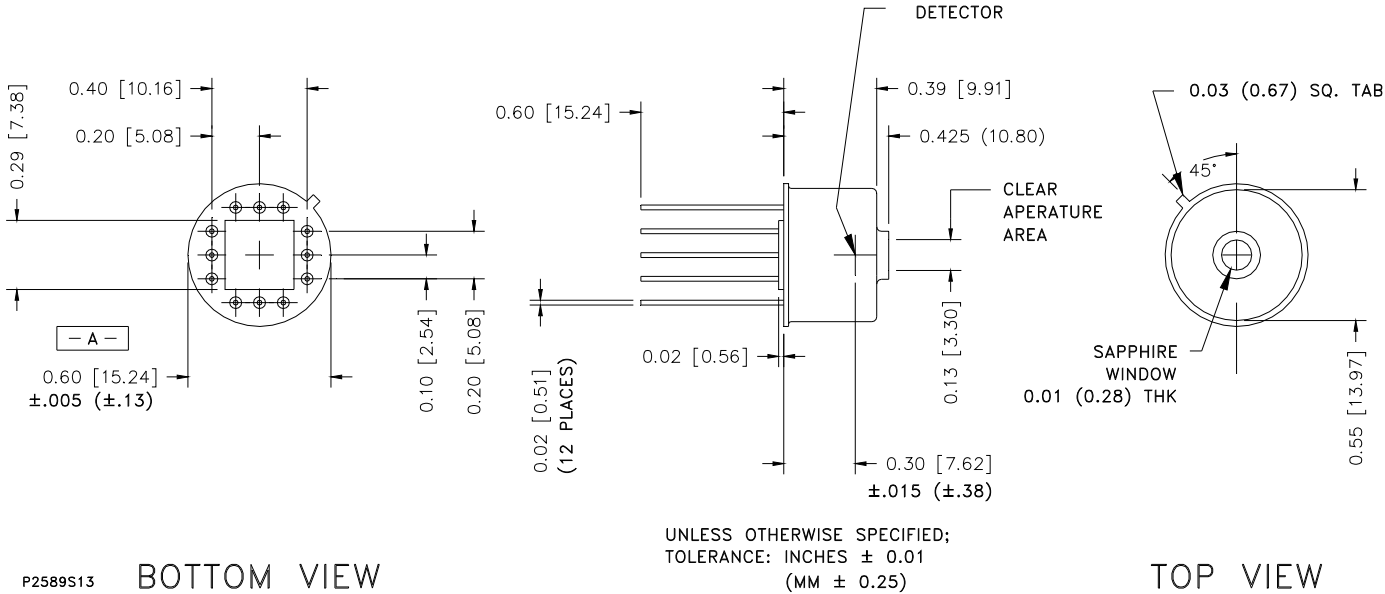
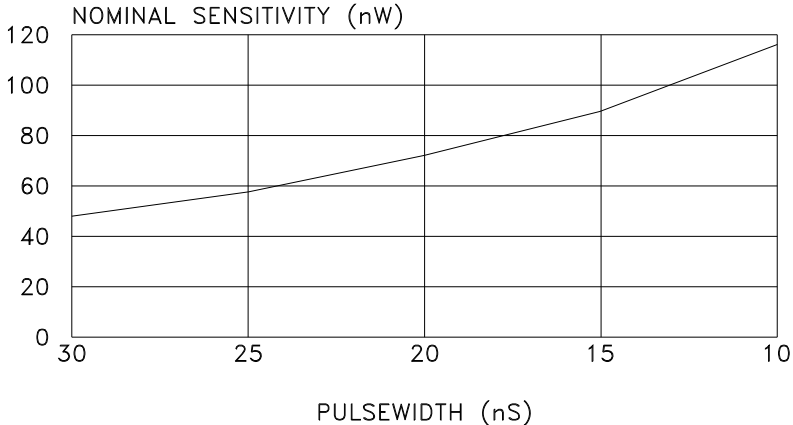
*Laser Ranging and Surveying*

"In the event this commodity will be transferred to a "foreign person" as defined in 22 CFR 120.16, either outside or within the United States, a validated US State Department license is required."

CONNECTIONS	754, PCB mount, PINS	754
-------------	----------------------	-----

Typical Part Number: **754-PCB =** Connections: PCB mount, PINS with PCB

MODEL 754 HYBRID RECEIVER  
SENSITIVITY vs PULSEWIDTH



P2589S13

BOTTOM VIEW

TOP VIEW