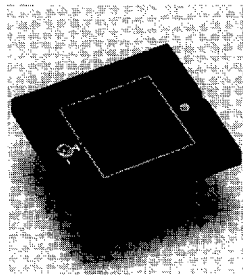


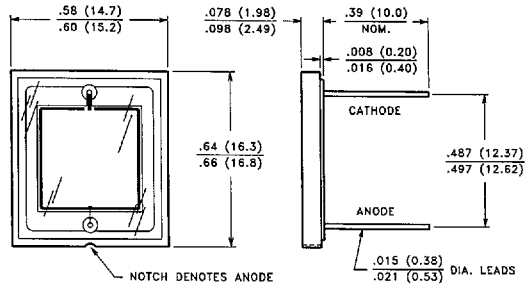
# Alternate Source/ Second Source Photodiodes

# VTH2090

(S1723-04 INDUSTRY EQUIVALENT)



## PACKAGE DIMENSIONS Inch (mm)



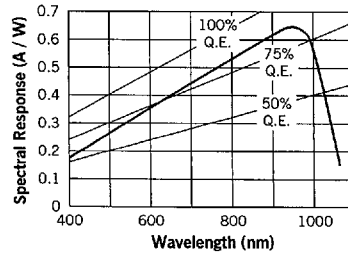
## PRODUCT DESCRIPTION

This PIN photodiode consists of a chip with a 9.2 x 9.2 mm active area mounted in a black ceramic package with an epoxy window. These devices are ideal for applications requiring a fast, large area, high detectivity device.

## ABSOLUTE MAXIMUM RATINGS

Maximum Current: 2 mA  
 Max. Power Dissipation: 100 mW  
 Max. Reverse Voltage: 50 Volts, Peak  
 Storage & Operating Temp.: -40°C to 100°C

## SPECTRAL RESPONSE



## ELECTRO-OPTICAL CHARACTERISTICS @ 25°C

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	VTH2090			UNITS		
			Min.	Typ.	Max.	Min.	Typ.	Max.
S <sub>R</sub>	Radiant Sensitivity	480 nm		0.25				A/W
		540 nm	50	0.30				
		633 nm		0.40				
		940 nm		0.60				
I <sub>SC</sub>	Short Circuit Current	100 Lux	65	80			μA	
I <sub>D</sub>	Dark Current	H = 0, V <sub>R</sub> = 30 V			10		nA	
TC I <sub>D</sub>	I <sub>D</sub> Temperature Coefficient			15			%/°C	
C <sub>J</sub>	Junction Capacitance	H = 0, V <sub>R</sub> = 30 V		70			pF	
t <sub>R</sub> / t <sub>F</sub>	Rise / Fall Time	(10% to 90%)		15			nsec	
λ <sub>range</sub>	Spectral Application Range		400		1100			nm
λ <sub>p</sub>	Spectral Response - Peak			960				nm
NEP	Noise Equivalent Power		4 x 10 <sup>-14</sup> (Typ.)					W/√Hz
D*	Specific Detectivity		2.6 x 10 <sup>13</sup> (Typ.)					cm√Hz/W