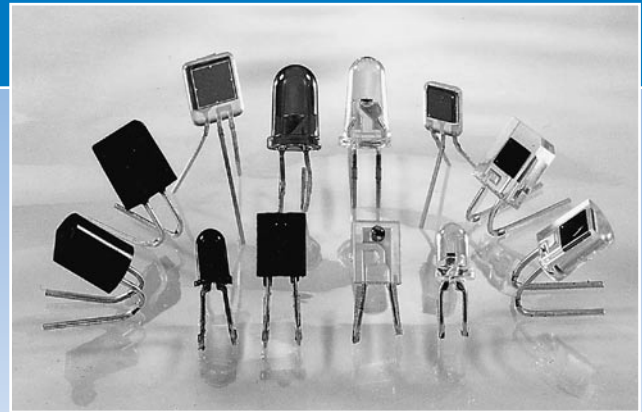


## Plastic Encapsulated Series

### Lead Frame Molded Photodiodes

OSI Optoelectronics offers a line of high quality and reliability plastic encapsulated photodiodes. These molded devices are available in a variety of shapes and sizes of photodetectors and packages, including industry standard T1 and T13/4, flat and lensed side lookers as well as a surface mount version (SOT- 23). They are excellent for mounting on PCB and hand held devices in harsh environments.

They have an excellent response in the NIR spectrum and are also available with visible blocking compounds, transmitting only in the 700-1100 nm range. They offer fast switching time, low capacitance as well as low dark current. They can be utilized in both photoconductive and photovoltaic modes of operation.



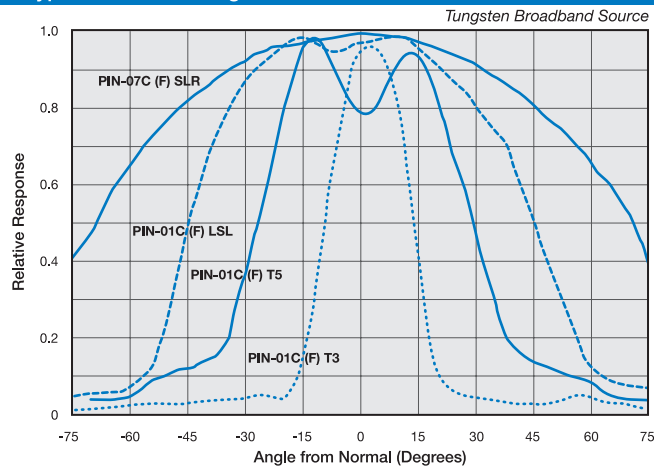
#### APPLICATIONS

- Bar Code Readers
- Industrial Counters
- Measurement and Control
- IR Remote Control
- Reflective Switches

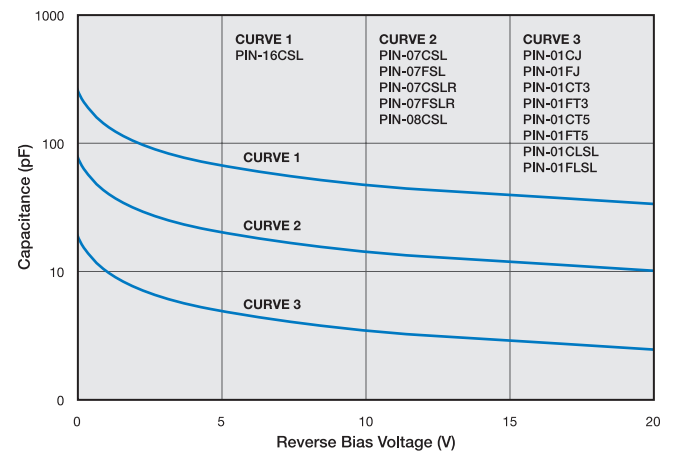
#### FEATURES

- High Density Package
- Rugged Molded Package
- Low Capacitance
- Low Dark Current
- Lead Frame Standard
- SMT
- Molded Lens Feature
- Side Lookers
- Filter on Chip (700nm Cutoff)

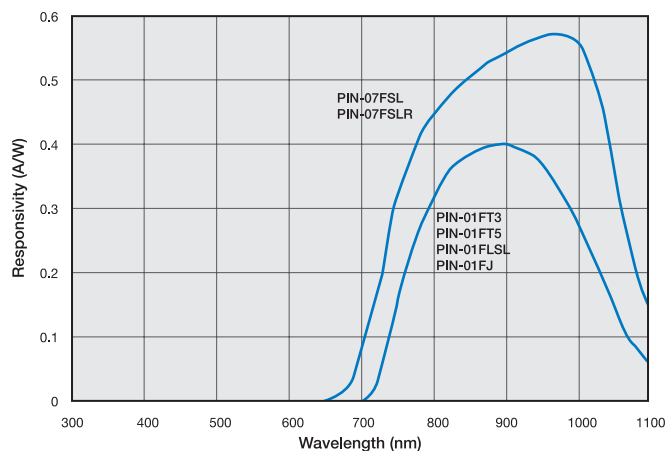
#### Typical Detection Angular Characteristics



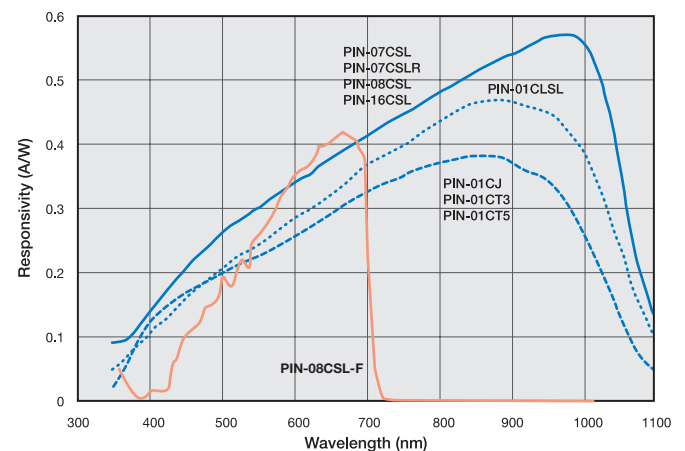
#### Typical Capacitance vs. Reverse Bias Voltage



#### Typical Spectral Response



#### Typical Spectral Response



# Plastic Encapsulated Series

Typical Electro-Optical Specifications at  $T_A=23^{\circ}\text{C}$

Model Number	Active Area		Spectral Range (nm)	Responsivity $I_p=970\text{nm}$	Capacitance (pF) 1 MHz		Dark Current (nA)		Reverse Voltage (V)	Rise Time (ns)	Temp.* Range ( $^{\circ}\text{C}$ )		Package Style ¶	
	Area (mm <sup>2</sup> )	Dimensions (mm)		(A/W)	0 V	-10 V	-10 V			-10 V peak $\lambda$ 50 $\Omega$	Operating	Storage		
				typ.	typ.	typ.	typ.	max.		max.				typ.
<b>PIN-01-CJ</b>	0.2	0.4 Sq	350-1100	0.40	21	4	2	30	20	11	-25 ~ +85	-40 ~ 100	59 / Resin Molded	
<b>PIN-01-FJ</b>			700-1100											58 / Resin Molded
<b>PIN-01-CT3</b>	0.2	0.4 Sq	350-1100										0.45	
<b>PIN-01-FT3</b>			700-1100											60 / Resin Molded
<b>PIN-01-CT5</b>	0.2	0.4 Sq	350-1100										0.40	62 / Leadless Ceramic
<b>PIN-01-FT5</b>			700-1100											
<b>PIN-01-CLSL</b>	0.2	0.4 Sq	350-1100										0.55	62 / Leadless Ceramic
<b>PIN-01-FLSL</b>			700-1100											
<b>PIN-0.81-LLS</b>	0.81	1.02	350-1100										0.55	62 / Leadless Ceramic
<b>PIN-0.81-CSL</b>			350-1100											
<b>PIN-4.0-LLS</b>	3.9	2.31x1.68	350-1100	0.55	62 / Leadless Ceramic									
<b>PIN-4.0-CSL</b>			350-1100			60 / Resin Molded								
<b>PIN-07-CSL</b>	8.1	2.84 Sq	350-1100	0.55	62 / Leadless Ceramic									
<b>PIN-07-FSL</b>			700-1100			57 / Resin Molded								
<b>PIN-07-CSLR</b>	8.1	2.84 Sq	350-1100	0.55	62 / Leadless Ceramic									
<b>PIN-07-FSLR</b>			700-1100			56 / Resin Molded								
<b>PIN-08-CSL-F</b>	8.4	2.90 Sq	350-720	0.43@660nm	..	25	..	10	75	60 / Resin Molded				
<b>PIN-8.0-LLS</b>	8.4	2.90 Sq	350-1100	0.55	62 / Leadless Ceramic									
<b>PIN-8.0-CSL</b>						350-1100	100	25	10	30	50	60 / Resin Molded		
<b>PIN-16-CSL</b>	16	4.00 Sq				330	55	5	100	60 / Resin Molded				

¶ For mechanical drawings please refer to pages 58 thru 69.

\* Non-Condensing temperature and Storage Range, Non-Condensing Environment.

The "CSL-F" series is homogeneous silicon photodiode and optical filter combination device. The filter coating is directly deposited onto the chip during wafer process.

## Tape and Reel Specifications for Surface Mount PIN-01(C)J and PIN-01(F)J

