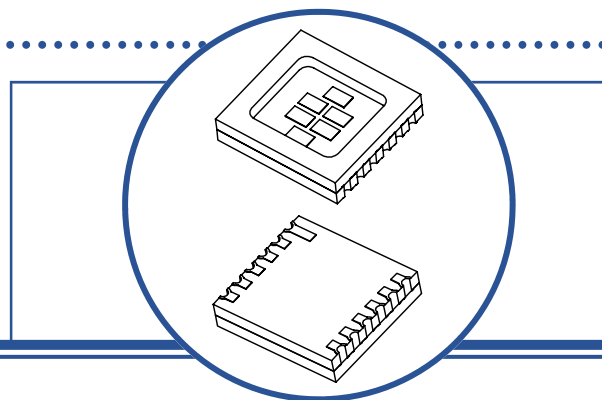


# Six Element Photodiode Array in SMD Hybrid Package



## OPR2101

- Six PIN photodiode array
- SMD chip carrier
- Wide operating temperature range
- Low leakage current
- Closely matched responsivity between elements



The OPR2101 is a six element photodiode array packaged in a high temperature SMD chip carrier. Designed specifically for industrial encoder applications, this device's small size, temperature range, and low leakage current make it the ideal choice for extreme operating conditions.

The photodiodes are mounted on isolated cathode contacts to allow external connection in any desired configuration. The opaque package material shields the photodiodes from stray light and can withstand multiple exposures to temperature excursions. The package has gold plated solder contacts with exception storage and solderability characteristics.

## Absolute Maximum Ratings

$T_A = 25^\circ\text{C}$  unless otherwise noted

Storage Temperature Range	-55° C to +125° C
Operating Temperature Range	-55° C to +125° C
Lead Soldering Temperature [Vapor phase reflow for 30 seconds]	235° C <sup>(1)</sup>
Reverse Voltage	25V

## Electrical Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

SYMBOL	PARAMETER	MIN	TYP	MAX	UNITS	CONDITIONS
R	Responsivity	0.45			A/W	$\Phi_e = 10\text{ }\mu\text{W}$ , $\lambda = 890\text{nm}$ , $V = 0\text{ V}$
$V_{(BR)R}$	Reverse Breakdown Voltage	25			V	$I_R = 100\text{ }\mu\text{A}$
$I_D$	Reverse Dark Current			1.0	nA	$V_R = 10.0\text{V}$ , $\Phi_e = 0$
$I_D$	Reverse Dark Current		1.0		$\mu\text{A}$	$V_R = 10.0\text{V}$ , $\Phi_e = 0$ , $T_A = 125^\circ\text{C}$

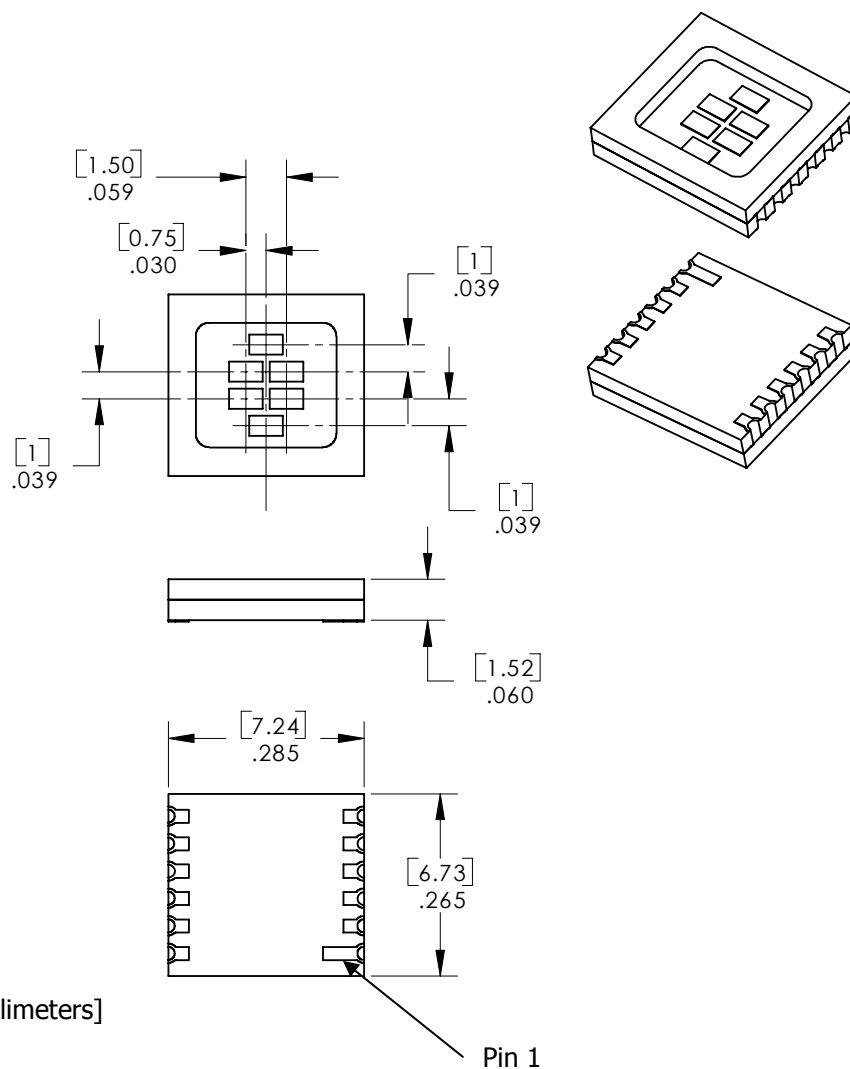
Optek reserves the right to make changes at any time in order to improve design and to supply the best product possible.



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### Mechanical Data



Dimensions are in inches [millimeters]

#### Pin Out

- |              |               |
|--------------|---------------|
| 1. Cathode A | 7. Anode D    |
| 2. Cathode B | 8. Cathode E  |
| 3. Anode B   | 9. Anode E    |
| 4. Anode C   | 10. Anode F   |
| 5. Cathode C | 11. Cathode F |
| 6. Cathode D | 12. Anode A   |

#### Photodiode Dimensions

