## imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



### Contact us

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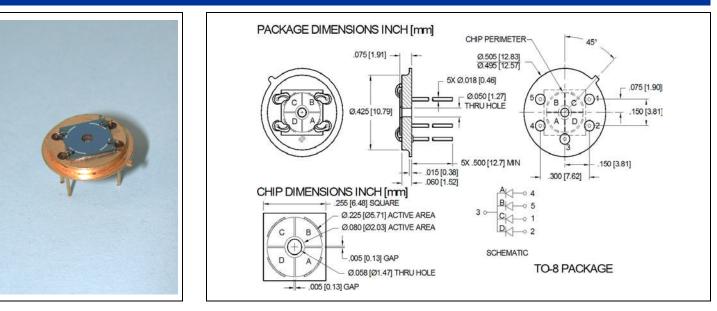




#### Red Enhanced Quad Cell Silicon Photodiode SD 225-23-21-040

#### WWW.LUNAINC.COM

#### **Precision – Control – Results**



#### DESCRIPTION

The SD 225-23-21-040 is a red enhanced guad-cell silicon photodiode used for nulling, centering, or measuring small positional changes packaged in a TO-8 metal package.

#### **FEATURES**

- Low Noise
- **Red Enhanced** •
- **High Shunt Resistance**
- **High Response**

#### RELIABILITY

Contact Luna for recommendations on specific test conditions and procedures.

#### **APPLICATIONS**

- **Emitter Alignment** 
  - **Position Sensing**
- Medical and Industrial



#### **ABSOLUTE MAXIMUM RATINGS**

SYMBOL	MIN		MAX	UNITS	
Reverse Voltage	-	-	50	V	$T_a = 23^{\circ}C$ UNLESS OTHERWISE NOTED
Storage Temperature	-55	-	+150	°C	-
Operating Temperature	-40	to	+125	°C	-
Soldering Temperature*	-	-	+240	°C	-
* 1/16 inch from case for 3 seconds m	าละ				·

1/16 inch from case for 3 seconds max.

Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice.

Page 1/2

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REV 01-04-16

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#### Red Enhanced Quad Cell Silicon Photodiode SD 225-23-21-040

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#### **OPTO-ELECTRICAL PARAMETERS**

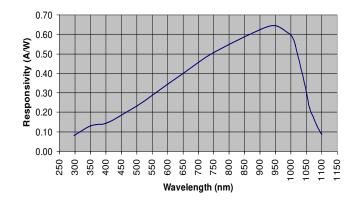
 $T_a = 23^{\circ}C$  UNLESS NOTED OTHERWISE

**Precision – Control – Results** 

PARAMETER	TEST CONDITIONS	MIN	ТҮР	MAX	UNITS	
Dark Current	V <sub>R</sub> = 5 V	-	1.2	6.5	nA	
Shunt Resistance	V <sub>R</sub> = 10 mV	100	-	-	MΩ	
Junction Capacitance	V <sub>R</sub> =0V; f = 1 MHz	-	102	-	pF	
	V <sub>R</sub> =5V; f = 1 MHz	-	24	-		
Spectral Application Range	Spot Scan	350	-	1100	nm	
Reponsivity	$\lambda$ = 633nm, V <sub>R</sub> = 0 V	.32	.36	-	A/W	
	$\lambda$ = 900nm, V <sub>R</sub> = 0 V	.50	.55	-		
Breakdown Voltage	l=10 μA	-	50	-	V	
Noise Equivalent Power	V <sub>R</sub> = 0V @ l=950nm	-	2.5x10 <sup>-14</sup>	-	W/ √ <sub>F</sub>	
Response Time**	$RL = 50 \ \Omega, V_R = 0 \ V$	-	190	-		
	$RL = 50 \ \Omega, V_R = 10 \ V$	-	13	-	– nS	

\*\*Response time of 10% to 90% is specified at 660nm wavelength light.

#### SPECTRAL RESPONSE



REV 01-04-16