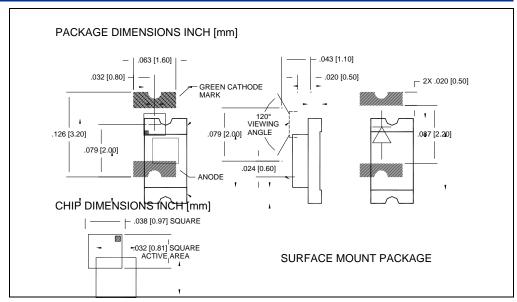


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# **Precision – Control – Results**





#### **DESCRIPTION**

The **PDB-C152SM** is a blue enhanced PIN silicon photodiode in a photoconductive mode packaged in a water clear surface mount package.

# **FEATURES**

- Surface Mount
- Photoconductive
- High Speed
- Low cost

### **RELIABILITY**

Contact Luna for recommendations on specific test conditions and procedures.

### **APPLICATIONS**

- Industrial Controls
- Opto Switches
- Opto Counters



#### **ABSOLUTE MAXIMUM RATINGS**

SYMBOL	MIN		MAX	UNITS	
Reverse Voltage	-	-	50	V	T <sub>a</sub> = 23°C UNLESS OTHERWISE NOTED
Storage Temperature	-40	-	+125	°C	-
Operating Temperature	-40	to	+80	°C	-
Soldering Temperature*	-	-	+240	°C	-

<sup>\* 1/16</sup> inch from case for 3 seconds max.



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# **Precision – Control – Results**

## **OPTO-ELECTRICAL PARAMETERS**

T<sub>a</sub> = 23°C UNLESS NOTED OTHERWISE

PARAMETER	TEST CONDITIONS	MIN	ТҮР	MAX	UNITS
Short Circuit Current	H= 100 fc, 2850 K	8	10	-	μΑ
Dark Current	V <sub>R</sub> = 10 V	-	2	10	nA
Shunt Resistance	V <sub>R</sub> = 10 mV	500	-	-	GΩ
Junction Capacitance	V <sub>R</sub> =10V; f = 1 MHz	-	15	20	pF
Spectral Application Range	Spot Scan	400	-	1100	nm
Breakdown Voltage	I=10 μA	50	100	-	V
Noise Equivalent Power	V <sub>R</sub> =10V@λ= Peak	-	1.5x10 <sup>-13</sup>	-	W/√ <sub>Hz</sub>
Response Time**	RL = $1K\Omega$ , $V_R = 50 \text{ V}$	-	50	-	nS

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

# **TYPICAL PERFORMANCE**

### **SPECTRAL RESPONSE**

