

8mm PIN PHOTODIODE

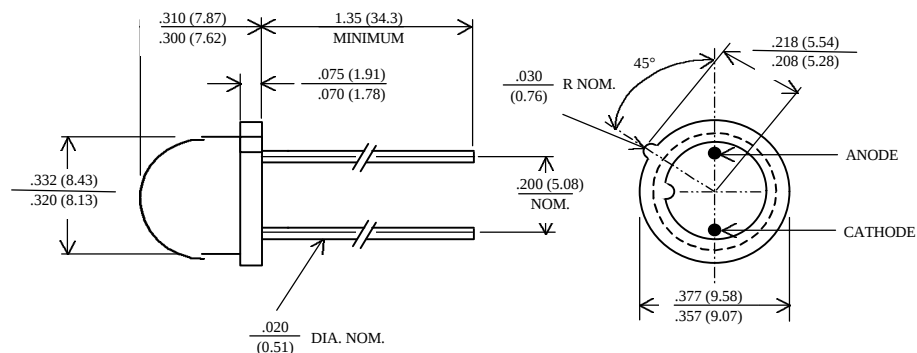
MID-A841G

Description

Large area planar silicon photodiode mounted on a two lead PC board substrate. A clear molded lens is used to increase sensitivity. Low junction capacitance permits fast response time.

Package Dimensions

Unit: inches (mm)



Features

- High photo sensitivity
- Low junction capacitance
- High cut-off frequency
- Fast switching time
- Acceptance viwe angle : 90°

Chip Active Area : 0.017 in² (11mm²)

Absolute Maximum Ratings

@ T_A=25°C

Parameter	Maximum Rating	Unit
Operating Temperature Range	-20°C to + 75°C	
Storage Temperature Range	-20°C to + 75°C	
Lead Soldering Temperature	260°C for 5 seconds	

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Unity Opto Technology Co., Ltd.

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Optical-Electrical Characteristics

@ T_A=25°C

Characteristic	Test Conditions	Symbol	Min.	Type .	Max.	Unit
Sensitivity @ 10 ⁻⁸ To 10 ⁻² W	880nm AXIS	S AXIS	0.17	0.25	0.28	A/W
Temperature Coefficient Of Sensitivity @ 880nm		TC _S	-	-	0.2	%/°C
Responsivity	V=0V, 880nm	R _e	0.13	0.18	0.25	$\frac{\mu A}{\mu W/cm^2}$
Open Circuit Voltage	H = 100 fc, 2850K	V _{OC}	-	0.33	-	V
Dark Current	H = 0, V _R = 10V	I _D	-	3	30	nA
Dark Current Temperature Coefficient	H = 0	TC I _D	-	+11	-	%/°C
Shunt Resistance	H = 0, V _F = 10mV	R _{SH}	-	67	-	MΩ
R _{SH} Temperature Coefficient	H = 0, V _F = 10mV	TC R _{SH}	-	-11	-	%/°C
Junction Capacitance	H = 0, V = 0V, Freq=1MHZ	C _J	-	85	-	pF
Spectral Application Range		λrange	400	-	1100	nm
Spectral Response-Peak		λ _p	-	925	-	nm
Breakdown Voltage	H = 0, I = 0.1mA	V _{BR}	-	150	-	V
Response Time λ=940nm R _L =10K OHMS I=2μA	RISE 10 - 90%	t _r	-	60	-	nS
	FALL 90 - 10%	t _f	-	60	-	
Angular Response	90% OF MAX	-	13	18	26	DEG
	70% OF MAX	-	30	35	40	
	50% OF MAX	-	35	45	50	