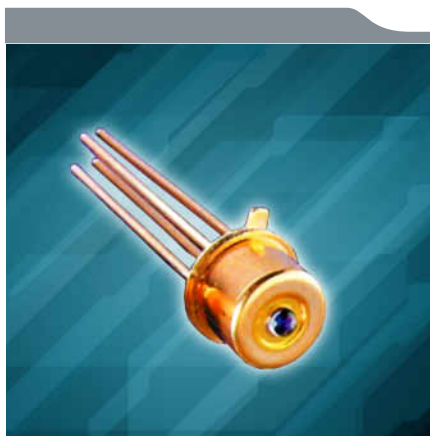


R-11-055-G-B • R-11-075-G-B/BB • R-11-100-G-B • R-11-300-G-B



Features

- InGaAs/ InP PIN Photodiode
- High responsivity at 1310 nm and 1550 nm
- Low dark current
- Fast pulse response
- -40 to 85°C operating temperature
- Hermetically sealed 3-pin metal case
- Active diameter is 55, 75, 100 or 300 μm

Packaging

- TO-46 package with integrated ball lens cap

Applications

- Connectorized receptacle module
- Coaxial pigtailed module

Absolute Maximum Ratings ($T_c = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Supply Reverse voltage	V_r	20	V
Forward Current	I_f	2	mA
Reverse Current	I_r	1	mA
Operating Temperature	T_{opr}	-40 to +85	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 to +85	$^\circ\text{C}$

R-11-055-G-B - Optical and Electrical Characteristics ($T_c = 25^\circ\text{C}$)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Active Area (Dia.)		-	55	-	μm	-
Detection Range		1100	1310	1650	nm	-
Responsivity	r	0.75	0.8	-	A/W	$V_r=5\text{V}$, $\mu=1310\text{ nm}$
Dark Current	I_{dark}	-	-	0.7	nA	$V_r=5\text{V}$
Capacitance	C	-	-	0.7	pF	$V_r=5\text{V}$
Rise Time, Fall Time	t_r, t_f	-	-	0.3	ns	$V_r=5\text{V}$, 10% to 90%
Bandwidth	BW	3	-	-	GHz	$V_r=5\text{V}$

R-11-075-G-B / R-11-075-G-BB - Optical and Electrical Characteristics ($T_c = 25^\circ\text{C}$)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Active Area (Dia.)		-	75	-	μm	-
Detection Range		1100	1310	1650	nm	-
Responsivity	r	0.8	0.85	-	A/W	$V_r=5\text{V}$, $\mu=1310\text{ nm}$
Dark Current	I_{dark}	-	0.4	0.8	nA	$V_r=5\text{V}$
Capacitance	C	-	0.7	0.9	pF	$V_r=5\text{V}$
Rise Time, Fall Time	t_r, t_f	-	-	0.3	ns	$V_r=5\text{V}$, 10% to 90%
Bandwidth	BW	2	-	-	GHz	$V_r=5\text{V}$

R-11-055-G-B • R-11-075-G-B/BB • R-11-100-G-B • R-11-300-G-B

R-11-100-G-B - Optical and Electrical Characteristics ($T_c = 25^\circ\text{C}$)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Active Area (Dia.)		-	100	-	μm	-
Detection Range		1100	1310	1650	nm	-
Responsivity	r	0.8	0.85	-	A/W	$V_f=5\text{V}, \mu=1310\text{ nm}$
Dark Current	I_{dark}	-	0.5	2	nA	$V_f=5\text{V}$
Capacitance	C	-	0.9	1.3	pF	$V_f=5\text{V}$
Rise Time, Fall Time	t_r, t_f	-	-	0.5	ns	$V_f=5\text{V}, 10\% \text{ to } 90\%$
Bandwidth	BW	1.5	-	-	GHz	$V_f=5\text{V}$

R-11-300-G-B - Optical and Electrical Characteristics ($T_c = 25^\circ\text{C}$)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Active Area (Dia.)			300		μm	-
Detection Range		1100	1310	1650	nm	-
Responsivity	r	0.8	0.85	-	A/W	$V_f=5\text{V}, \mu=1310\text{ nm}$
Dark Current	I_{dark}		2	5	nA	$V_f=5\text{V}$
Capacitance	C		6	10	pF	$V_f=5\text{V}$
Rise Time, Fall Time	t_r, t_f	-	1	-	ns	$V_f=5\text{V}, 10\% \text{ to } 90\%$
Bandwidth	BW	0.5			GHz	$V_f=5\text{V}$

Outline Drawings

Diagram 1

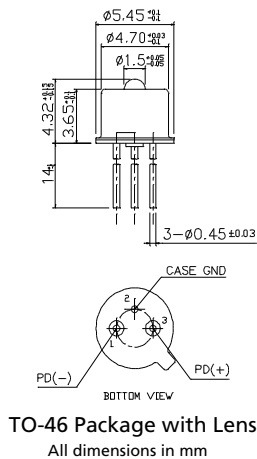


Diagram 2

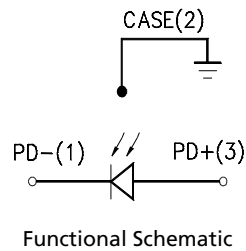
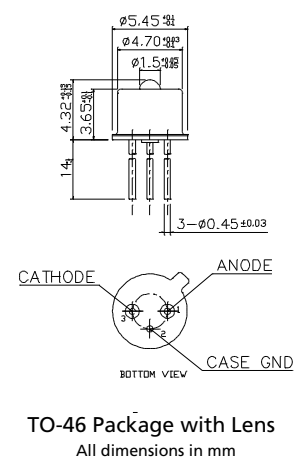


Diagram 3



Notes:
Diagram 1&2 is for R-11-055-G-B, R-11-075-G-B, R-11-100-G-B, and R-11-300-G-B
Diagram 3 is for R-11-075-G-BB

Warnings

Handling Precautions: This device is susceptible to damage as a result of electrostatic discharge (ESD). A static free environment is highly recommended. Follow guidelines according to proper ESD procedures.

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