

R-11-XXXXA-G-B(B)-C



Features

- InGaAs/InP PIN Photodiode
- High Responsivity @1310 nm and 1550 nm
- Low dark current
- Low intermodulation distortion
- High responsivity
- Hermetically sealed 3-pin metal case
- Active diameter is 40, 55 and 75 μm
- Return path Analog CATV optical receiver to 550MHz (75 μm)Application
- Forward path Analog CATV optical receiver to 2.5GHz(55 μm) and 3.0GHz(40 μm)
- TO-46 package with integrated coated ball lens cap

Absolute Maximum Rating (Tc=25°C)

Parameter	Symbol	Min	Max	Unit
Reverse Voltage	V_R	-	20	V
Forward Current	I_F	-	2	mA
Reverse Current	I_R	-	1	mA
Operating Temperature	T_{opr}	-40	+85	°C
Storage Temperature	T_{stg}	-40	+85	°C

R-11-075A-G-B(B)-C

Optical and Electrical Characteristics(Tc=25°C)

Parameter	Symbol	Min	Typical	Max	Unit	Test condition
Operating Voltage	V_{op}	-	-	15	V	-
Detection Range	-	1100	1310	1650	nm	-
Responsivity	R	0.8	0.85	-	A/W	$V_R = 5V, \lambda = 1310 \text{ nm}$
		0.8	0.9	-	A/W	$V_R = 5V, \lambda = 1550 \text{ nm}$
Distortion Products: Composite Second Order	CSO	-	-70	-	dBc	Note 1
Dark Current	I_{dark}	-	-	0.8	nA	$V_R = 5V$
Capacitance	C	-	0.75	-	pF	Note 2
Bandwidth	BW	2	-	-	GHz	$V_R = 5V$

R-11-055A-G-B(B)-C

Optical and Electrical Characteristics(Tc=25°C)

Parameter	Symbol	Min	Typical	Max	Unit	Test condition
Operating Voltage	V_{op}	-	-	15	V	-
Detection Range	-	1100	1310	1650	nm	-
Responsivity	R	0.75	0.8	-	A/W	$V_R = 5V, \lambda = 1310 \text{ nm}$
		0.8	0.9	-	A/W	$V_R = 5V, \lambda = 1550 \text{ nm}$
Distortion Products: Composite Second Order	CSO	-	-70	-	dBc	Note 1
Dark Current	I_{dark}	-	-	0.8	nA	$V_R = 5V$
Capacitance	C	-	0.6	-	pF	Note 2
Bandwidth	BW	3	-	-	GHz	$V_R = 5V$

R-11-XXXXA-G-B(B)-C

R-11-040A-G-B(B)-C

Optical and Electrical Characteristics(Tc=25°C)

Parameter	Symbol	Min	Typical	Max	Unit	Test condition
Operating Voltage	V _{op}	-	-	15	V	-
Detection Range	-	1100	1310	1650	nm	-
Responsivity	R	0.75	0.8	-	A/W	V _R = 5V, λ=1310 nm
		0.8	0.9	-	A/W	V _R = 5V, λ=1550 nm
Distortion Products: Composite Second Order	CSO	-	-70	-	dBc	Note 1
Dark Current	I _{dark}	-	-	0.8	nA	V _R = 5V
Capacitance	C	-	0.5	-	pF	Note 2
Bandwidth	BW	4	-	-	GHz	V _R = 5V

Note 1) Test condition : 2 lasers at 1550nm with 40% OMI per channel.Total optical power is 0 dBm.

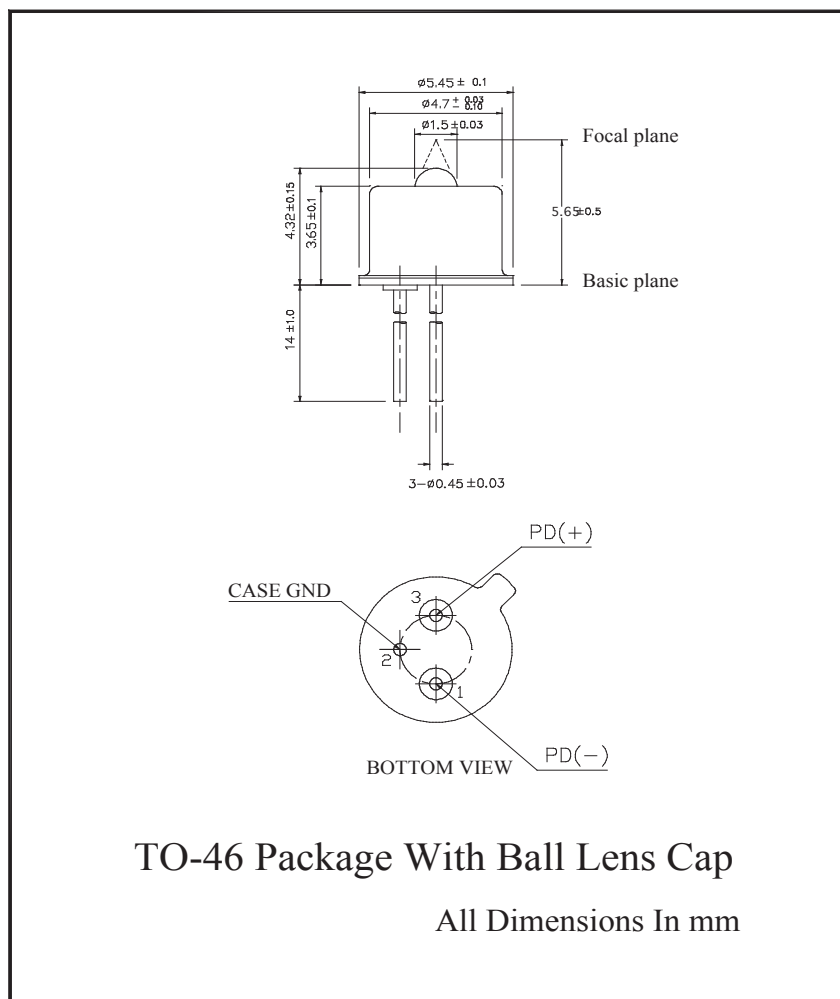
Note 2)V_R=5V, Case grounded

R-11-XXXXA-G-B(B)-C

Package Diagram

Diagram 1 is for R-11-XXXXA-G-B-C

Diagram 1



R-11-XXXXA-G-B(B)-C

Package Diagram

Diagram 2 is for R-11-XXXXA-G-BB-C

Diagram 3 is the functional schematic for R-11-XXXXA-G-XX-C

Diagram 2

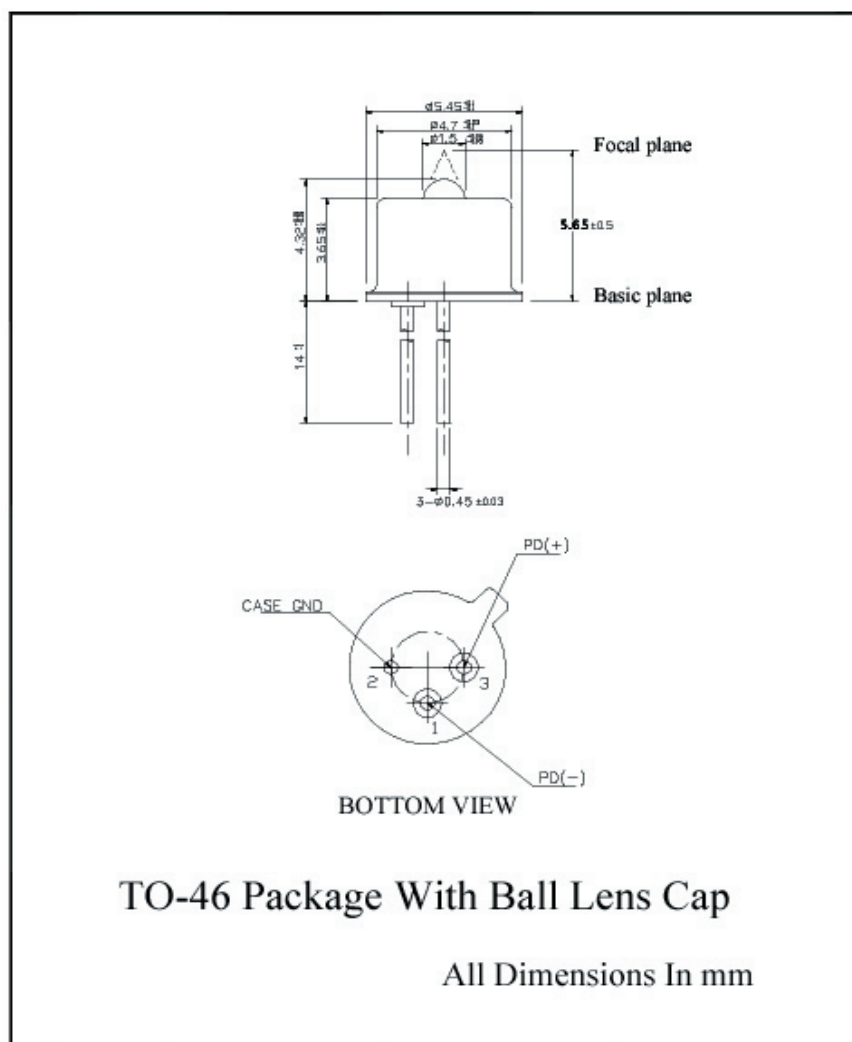
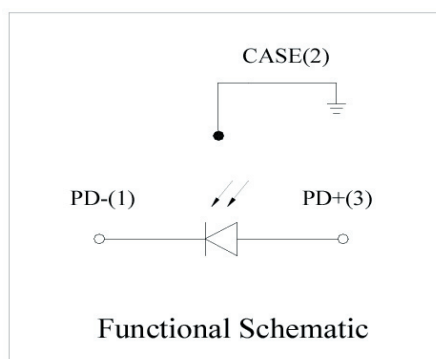


Diagram 3



R-11-XXA-G-B(B)-C

Ordering Information

R-11-XXA-G-B(B)-C

Active region size

040 : 40 μ m055 : 55 μ m075 : 75 μ m

"A" = Analog

"C" = Coated ball lens cap

B = Coated ball lens cap with A-type pin assignment

BB = Coated ball lens cap with B-type pin assignment

"- " = No symbol

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.

Laser Safety: Radiation emitted by laser devices can be dangerous to human eyes. Avoid eye exposure to direct or indirect radiation.

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