R-11-XXXA-G-A(B)

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 (75um)Application
- Forward path Analog CATV optical receiver to 2.5GHz(55um) and 3.0GHz(40um)
- TO-46 package wih intergrated flat window cap

Absolute Maximum Rating (Tc=25ºC)

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	ºC
Storage Temperature	T_{stg}	-40	+85	ºC

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

Optical and Electrical Characteristics(Tc=25ºC)

Parameter	Symbol	Min	Typical	Max	Unit	Test condition
Operating Voltage	V_{op}	-	-	15	V	-
Detection Range	-	1100	1310	1650	nm	-
Responsivity	R	0.8 0.8	0.85 0.9	- -	A/W A/W	V_R = 5V, λ=1310 nm 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	-	0.75	-	pF	Note 2
Bandwidth	BW	2	-	-	GHz	V_R = 5V

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

Optical and Electrical Characteristics(Tc=25ºC)

Parameter	Symbol	Min	Typical	Max	Unit	Test condition
Operating Voltage	Vop	-	-	15	V	-
Detection Range	-	1100	1310	1650	nm	-
Responsivity	R	0.75 0.8	0.8 0.9	-	A/W	V_R = 5V, λ=1310 nm 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	-	0.6	-	pF	Note 2
Bandwidth	BW	3	-	-	GHz	V_R = 5V

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

Optical and Electrical Characteristics(Tc=25ºC)

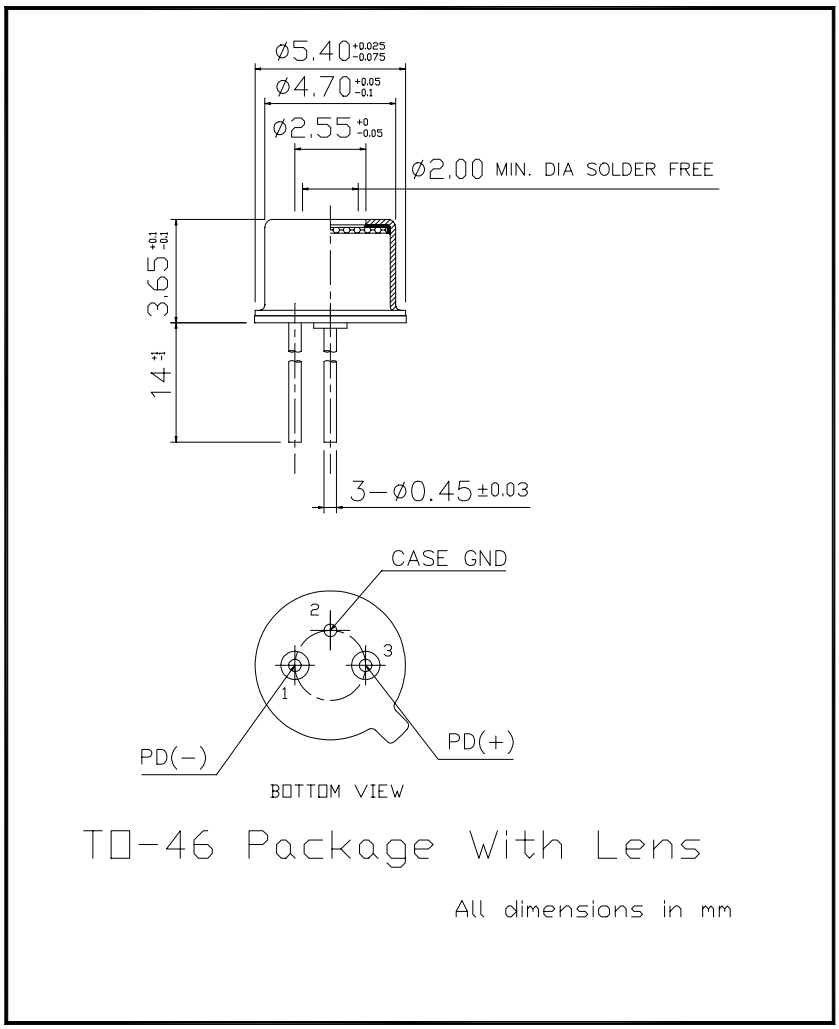
Parameter	Symbol	Min	Typical	Max	Unit	Test condition
Operating Voltage	Vop	-	-	15	V	-
Detection Range	-	1100	1310	1650	nm	-
Responsivity	R	0.75 0.8	0.8 0.9	- -	A/W A/W	V_R = 5V, λ=1310 nm V_R = 5V, λ=1550 nm
Distortion Products: Composite Second Order	CSO	-	-70	-	dBc	Note 1
Dark Current	I_{dark}	-	-	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

Package Diagram

Diagram 1 is for R-11-XXXA-G-A

Diagram 1



Package Diagram

Diagram 2 is for R-11-XXXA-G-AB
Diagram 3 is the functional schematic for R-11-XXXA-G-XX

Diagram 2

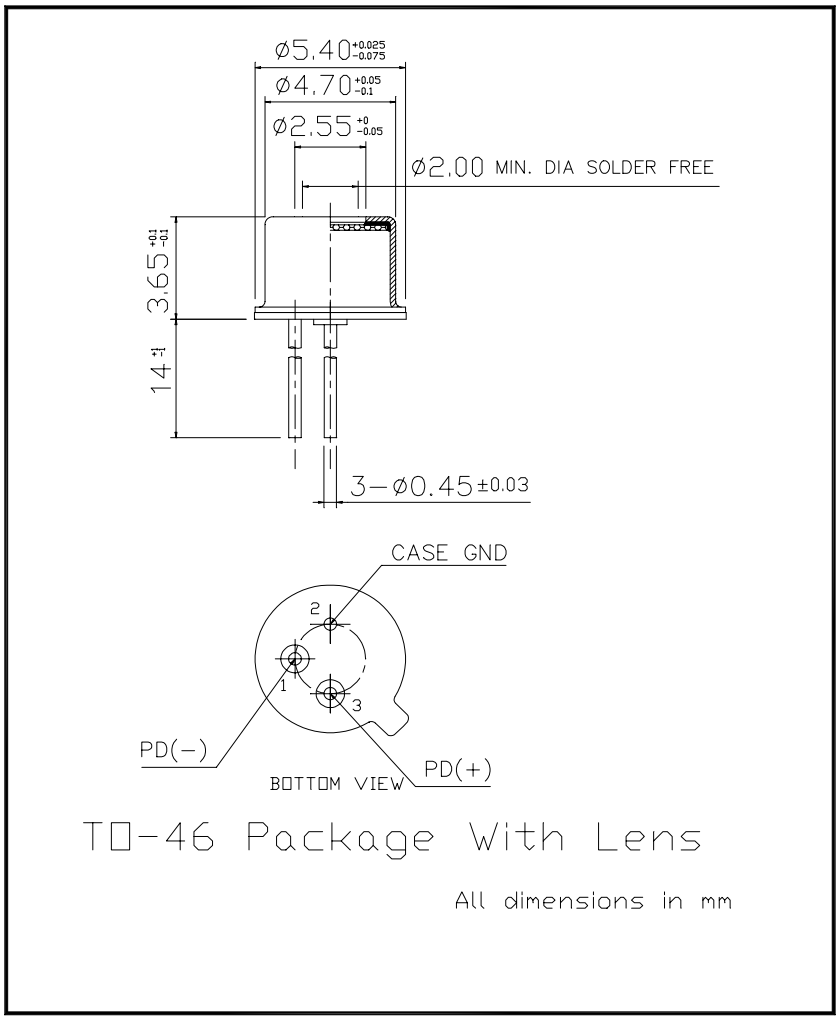
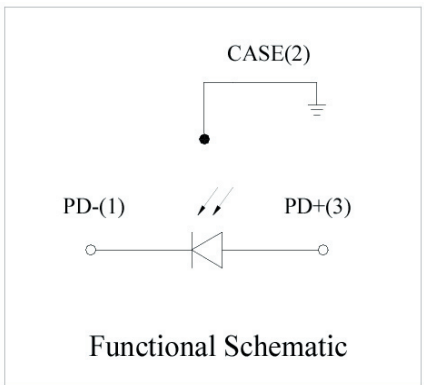


Diagram 3



Ordering Information

R-11-XXXA-G-A(B)

Active region size
040 : 40 μm
055 : 55 μm
075 : 75 μm

"A" = Analog

A- = Flat window cap with A-type pin assignment
AB= Flat window 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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