

Preliminary

NEC

OD-8452N Series

SMT-InGaAs PIN-Amp Module Series

OD-8452N series are new surface-mount low cost InGaAs-PIN-PD modules with Pre-Amp. These devices can achieve stable operation over wide temperature range of -40 to +85°C.

These modules have detachable pigtail interface and packaged in 8 pin surface-mount package. Therefore the modules can be soldered like an ordinary IC by standard I.R. reflow soldering process.

OD-8452N series can be operated at speed 155/622 Mb/s and are especially suitable for the use of the subscriber loop, SONET and FITL.

1. FEATURES

- Surface mountable using I.R. reflow solder
- Small size flat ceramic package (7.6 x 15.2 x 3 mm)
- High sensitivity
- Internalize low noise GaAs TIA
- Internalize supply bypass capacitor
- Wide operating temperature range : -40 to +85°C
- Detachable pigtail interface

2. APPLICATION

- Subscriber loop
- Telecommunications
- Data communications
- Local area networks

3. ABSOLUTE MAXIMUM RATINGS

(Ta=+25°C, unless noted)

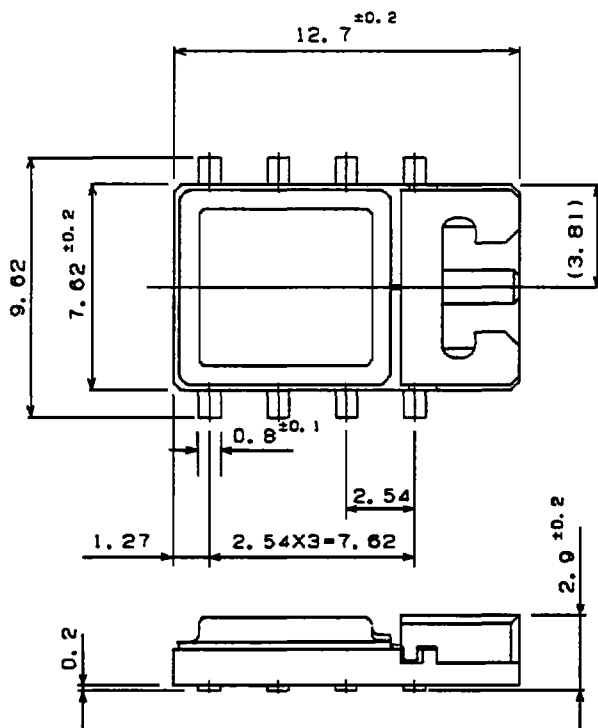
Item	Symbol	ratings	Unit	notes
Optical Input Power	Pin	2	mW	
Supply Voltage	VDD	+7.0	V	
Operating Temperature	Top	-40 to +85	°C	
Storage Temperature	Tstg	-40 to +85	°C	
Lead Soldering Temperature	Tsol	230°C, 30sec.		reflow soldering

4. PERFORMANCE SPECIFICATIONS

(Ta=+25°C, unless noted)

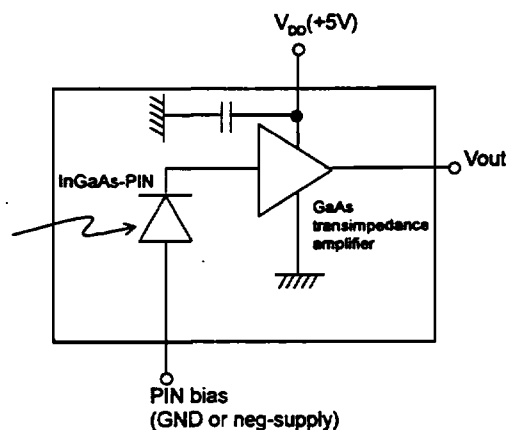
Parameter	Device Code	OD-8452NA			OD-8452NB			Unit
	Conditions	Min.	Typ.	Max.	Min.	Typ.	Max.	
Sensitivity	BER = 10^{-10}		-38			-32		dBm
Optical Overload		-3	0		-3	0		dBm
Band Width	3dB down	150	175	-	500	550	-	MHz
Trans Impedance			17			6		k Ω
Operating Voltage		+4.5	+5.0	+5.5	+4.5	+5.0	+5.5	V
Responsivity			0.9			0.9		A/W

5. PACKAGE DIMENSION



Dimensions in millimeters

pin	Function
1	PD bias
2	GND
3	GND
4	Vout
5	GND
6	GND
7	V _{DD} (+5V)
8	GND



6. ORDERING INFORMATION

OD-8452NA : 155 Mb/s (OC3)

OD-8452NB : 622 Mb/s (OC12)