

Si PIN Photodiode 400..1000nm 100MHz

1 General

This high speed Si PIN photodiode is designed for visible to near infrared light detection. The photodiode provides wideband characteristics at low bias, making it suitable for optical communications and other photometry. The insert includes a 1mm POF fiber stub for efficient fiber coupling. The insert meet the requirements of DIN 41626 and are designed for use in mixed card edge connectors, type DIN 41612 or D-Sub.

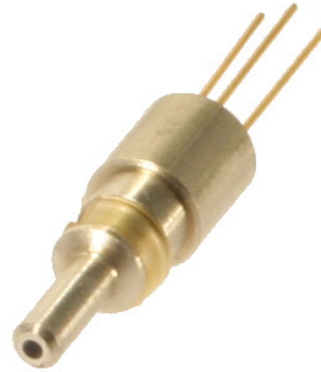
2 Applications

Due to the high speed, the good optical and mechanical features, this receiver may be used in many applications:

- Optical networks
- Industrial electronic
- Power electronic

3 Ordering Information

Style	Part Number
DIN 41626 Male Insert	905EMPINDI104



Pic. 1 Fiber optic receiver

5 Features

- 400..1000nm optical receiver
- high sensitivity
- 100MHz bandwidth
- high reliability
- 2.5mm metal ferrule
- Qualified for 1mm POF*, HCS®
- wave soldering compatible

4 Technical Drawing

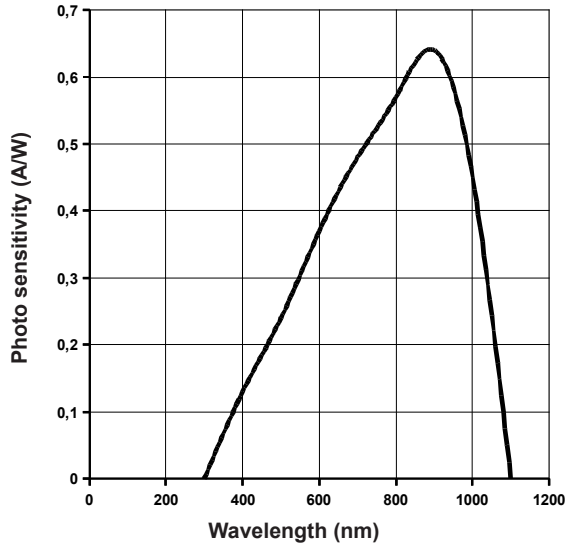
<p>Case</p>	<p>Schematic</p>	<p>Pinout</p> <table border="1"> <thead> <tr> <th>PIN Nr.</th> <th>Funktion</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Cathode</td> </tr> <tr> <td>2</td> <td>Case</td> </tr> <tr> <td>3</td> <td>Anode</td> </tr> </tbody> </table>	PIN Nr.	Funktion	1	Cathode	2	Case	3	Anode
PIN Nr.	Funktion									
1	Cathode									
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Pic 2 Case drawing

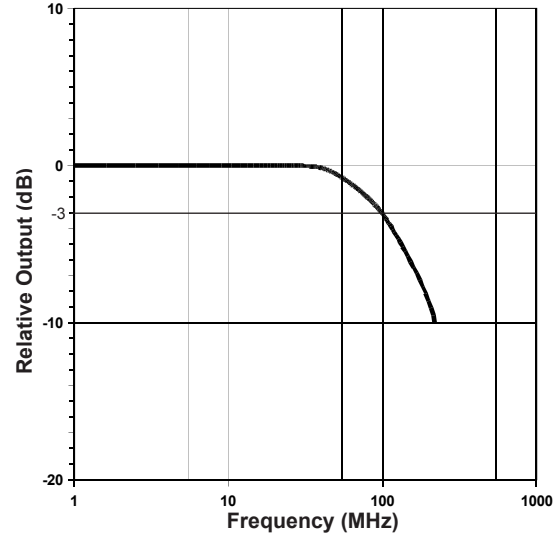
* POF = polymer optical fiber / plastic optical fiber
 HCS is a registered trademark in the USA of Furukawa Electric North America, Inc.

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6 Spectral response _____



7 Frequency response _____



8 Maximum ratings _____

Stresses beyond those listed under 'Maximum Ratings' may cause permanent damage to the device. Listed values are stress limits only and functional operation of the device at these conditions is not recommended. Exposure to maximum rating conditions for extended periods may affect the device reliability.

Parameter	Symbol	Value	Unit
reverse voltage	V_R	20	V
power dissipation	P	50	mW
operating temperature	T_{opr}	-40 to +85	°C
storage temperature	T_{stg}	-55 to +85	°C

9 Technical data _____

Parameter	Symbol	Condition	Min	Typ	Max	Unit
spectral range	λ		320		1060	nm
peak sensitivity	λ_{PEAK}		-	900	-	nm
660nm sensitivity	S_{660}		-	0.44	-	A/W
dark current	I_D	$V_R = 10V$	-	0.07	1	nA
cut-off frequency	f_C	$V_R = 10V$	-	100	-	MHz
capacitance	C_t	$V_R = 10V f = 1MHz$	-	3	-	pF
noise equivalent power	NEP	$V_R = 10V$	-	7.4×10^{-15}	-	W/Hz ^{1/2}

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