

LED 650nm 156MBit/s

1 General

This active component is especially suited for applications with standard 1mm plastic optical fiber. Pre-mounted with a fast 650nm RCLED capable of high optical output power, the component is a good solution in optical data transmission systems with plastic optical fibers.

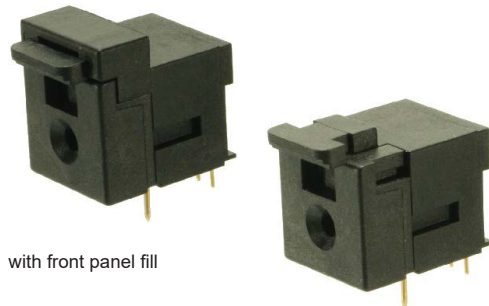
2 Application

Due to the high data rate of 156MBit/s, the good optical and mechanical features this transmitter may be used in many applications:

- • Optical networks
- • Industrial electronic
- • Power electronic

3 Ordering information

Specification	Part number
650 nm LED	905SE650KR003
650 nm LED (with front panel fill)	905SE650KR004



with front panel fill

without front panel fill

Pic. 1 RPOptoClamp

5 Features

- 650nm LED
- 156MBit/s
- plugless fiber optic cable assembly
- Suitable for all plastic optical fiber cable with an outside diameter of 2.2mm and a fiber diameter of 1mm
- Plastic housing
- Pick-and-place support
- wave soldering compatible

4 Drawings

Housing

without front panel fill with front panel fill

Contingent position of sliders, locking mechanism

Slider „open“ for mounting or de-mounting of fiber

Fiber fixed by clamping

Slider `closed`, the RPOptoClamp receptacle is dust and light protected.

PCB hole pattern

View: components side
Drill diameter:
PIN 1, 2, 3, 4 = 0.8mm
Fixing pins = 1.0mm

Schematic diagram

Pic. 2 Drawings



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6 Maximum ratings _____

Stresses beyond those listed under «Maximum Ratings» may cause permanent damage to the device. Maximum ratings represent stress limits of the device. Operation of the electronic component at these values is not recommended over an extended period as this may adversely affect the reliability of the component.

Parameter	Symbol	Value	Unit
Operating temperature	T_{OPR}	0 to +60	°C
Storage temperature	T_{STG}	-40 to +85	°C
Soldering temperature 1.5 mm distance to housing, $t \leq 5s$	T_{SOL}	230	°C
Forward current	I_F	50	mA
Power dissipation	P_{max}	130	mW

7 Technical data _____

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward voltage	V_F	$I_F=20mA$	-	1.9	2.4	V
Emission wavelength	λ_p	$I_F=20mA$	640	650	665	nm
Spectral half width	$\Delta\lambda$	$I_F=20mA$	-	-	25	nm
Fiber coupled optical power	P_O	1mm POF, 1m	-4.5	-2	0.5	dBm
Cut-off frequency	f_c	$I_F=20mA$	60	70	-	MHz

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