

LED 660nm

1 General

This active component is especially suited for applications with standard 1mm plastic optical fiber. The high performance of the 660 nm LED makes this transmitter a good choice in data transmission systems with plastic fibers.

2 Application

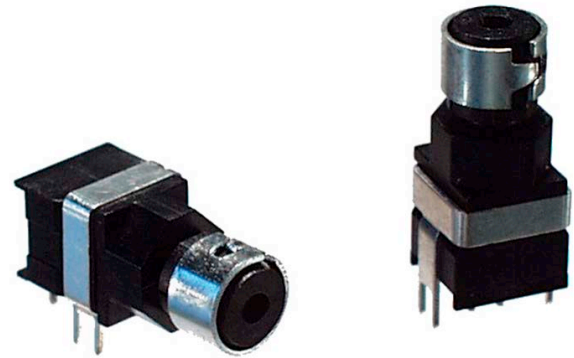
Due to the good optical and mechanical features this transmitter may be used in many applications:

- Optical Networks
- Industrial Electronics
- Power Electronics
- Light Barriers

3 Ordering information

Transmitter 660 nm

Specification	Part number
Horizontal assembly version	905SE660KM006
Vertical assembly version	905SE660KM007



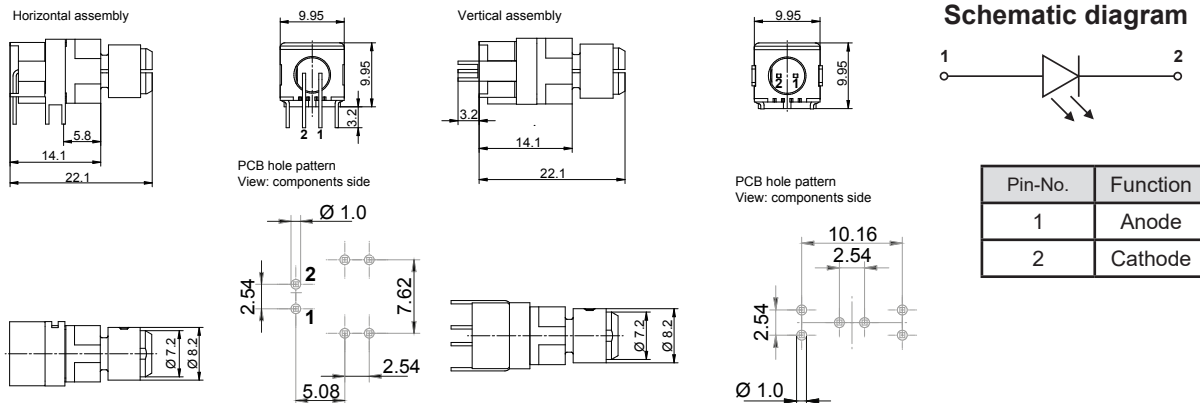
Pic. 1 Clamp housing with 660nm Transmitter

4 Features

- 660nm LED
- Plugless optical fiber cable assembly
- Suitable for all plastic optical fiber cables with an outside diameter of 2.2 mm and a fiber diameter of 1 mm
- Fast locking mechanism (clamping ring)
- Plastic housing
- Suitable for automatic assembly
- Reflow-/ wave soldering

5 Drawings

Housing



Pic. 2 Drawings



LED 660nm

6 Maximum Ratings ($T_c = 25^\circ\text{C}$) _____

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	Value	Unit
Operating temperature	-20 ... +80	$^\circ\text{C}$
Storage temperature	-30 ... +100	$^\circ\text{C}$
Junction temperature	100	$^\circ\text{C}$
Lead soldering temperature 3mm from case, $t \leq 5\text{s}$	260	$^\circ\text{C}$
Reverse voltage	5	V
Forward current	50	mA
Forward pulse current $t_w \leq 10\mu\text{s}$, $T = \text{ms}$	500	mA
Power dissipation	120	mW

7 Technical Data _____

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Forward voltage	V_F	$I_F = 20\text{mA}$		1.8	2.2	V
Power output	P_O	$I_F = 20\text{mA}$		5		mW
Reverse current	I_R	$V_R = 5\text{V}$			100	μA
Peak wavelength	λ_p	$I_F = 20\text{mA}$		660		nm
Spectral line half width	Δ_λ	$I_F = 20\text{mA}$		25		
Half intensity beam angle	$\theta_{1/2}$	$I_F = 20\text{mA}$		± 55		deg.
Switching times	t_r	$I_{FP} = 20\text{mA}$		30		ns
	t_f			30		
Junction capacitance	C_J	1MHz, $V=0\text{V}$		20		pF
Temperature coefficient	T_{POPT}	$I_F = 10\text{mA}$		-0.5		$\%/^\circ\text{C}$
	T_{VF}			-1.5		$\text{mV}/^\circ\text{C}$

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