

**System adapter for light source MS100HU 660nm**

**1 General**

The adapter series is especially suitable for inspections and tests at assembled fiber optic cables with core diameter from 200µm (PCF) up to 1mm (standard POF) in combination with the signal generator MS100HU (part-no.: 909MS 000 00111). The adapter is pre-mounted with a fast 660nm LED capable of a high optical output power. Designed to operate with the signal generator MS100HU, the adapter fits on every function- or puls-generator with 50 Ohm output impedance.



**2 Application**

Due to the high modulation frequency of 10MBit/s, the good optical and mechanical features the adapter may be used in many applications:

- Quality inspections
- Receiver tests
- Attenuation measurements
- Installation inspections at optical networks



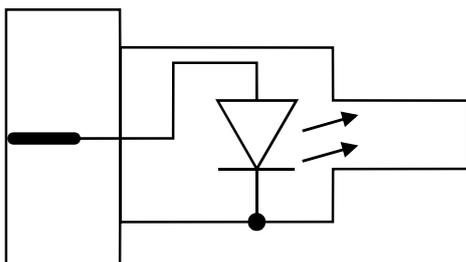
**3 Features**

- 660nm LED
- 200µW @ 10mA fiber coupled power 1mm POF
- 10MBit/s
- Suitable for fiber optics with core diameter from 200µm (PCF) up to 1mm (standard POF)
- Compact design with BNC male socket
- Optical ports F-SMA, F-ST, F-05, HFBR-Versatile Link, Fiber end sleeve or SC-RJ



Pic. 2 System adapters for light source

**4 Block Diagramm**



Pic. 1 Adapter block diagramm

**5 Ordering Information**

Type	Part Number
660nm LED F-SMA	909MS660SM001
660nm LED F-ST	909MS660ST001
660nm LED F-05	909MS660T155K
660nm LED HFBR	909MS660HF006
660nm LED Fiber end sleeve	909MS660FE001
660nm LED SC-RJ	909MS660SR001

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### 6 Maximum Ratings \_\_\_\_\_

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

Parameter	Value	Unit
Operating temperature	-40 to +80	°C
Storage temperature	-55 to +100	°C
Junction temperature	100	°C
Soldering temperature 2mm from housing, $t \leq 5s$	260	°C
Reverse voltage	3	V
Forward current	50	mA
Surge current $t \leq 10\mu s$ , $D=0$	1	A
Power dissipation	120	mW
Thermal resistance	450	K/W

### 7 Technical Data \_\_\_\_\_

Parameter	Value	Unit
wavelength $\lambda$	660	nm
spectral bandwidth $\Delta\lambda$	25	nm
switching times ( $I_F=50mA$ )		
$t_R$	100	ns
$t_F$	100	ns
capacitance $C_J$ ( $V_R=0V$ )	30	pF
forward voltage $V_F$ ( $I_F=50mA$ )	2.1 (<2.8)	V
output power $P_{OUT}$ coupled into 1mm plastic fiber ( $I_F=10mA$ )	200 (>100)	$\mu W$
temperature coefficient $P_{OUT}$	-0.4	%/K
temperature coefficient $V_F$	-3	mW/K
temperature coefficient $\lambda$	-0.16	nm/K

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### 8 Characteristics

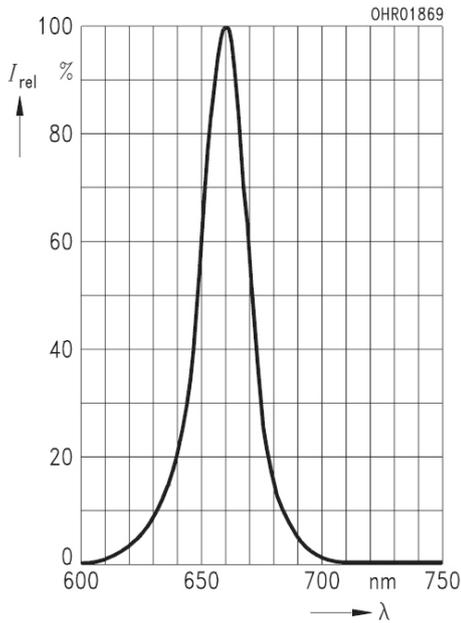


Figure 1. Relative Spectral Emission  $I_{rel} = f(\lambda)$

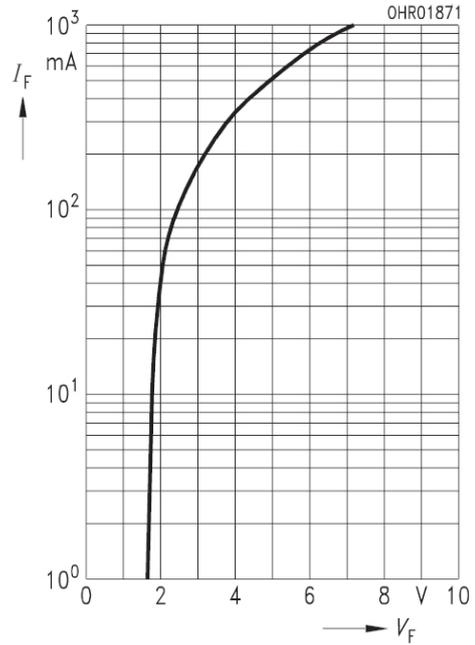


Figure 2. Forward Current  $I_F = f(V_F)$  single pulse, duration = 20  $\mu$ s

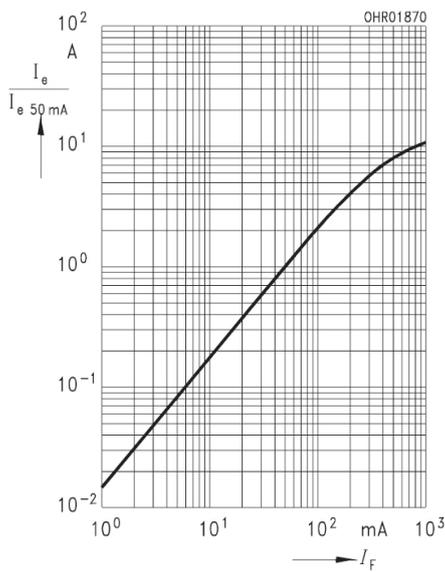


Figure 3. Relative Output Power,  $I_e/I_e(50 \text{ mA}) = f(I_F)$  single pulse, duration = 20  $\mu$ s

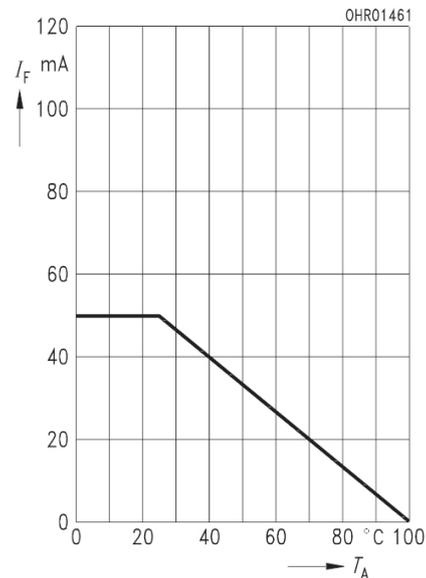


Figure 4. Maximum Permissible Forward Current,  $I_F = f(T_A)$ ,  $R_{thJA} = 450 \text{ K/W}$

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