

# Transmitting and Receiving Elements

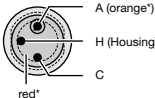
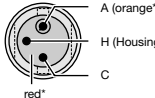
## Transmitting element 1 A 184 A



Fig.: 1 A 184 A  
in diode socket LWMDL



Fig.: 1 A 184 A  
in diode socket LSTD L

<b>Type</b>	<b>1 A 184 A</b>
Description	<p><b>Infrared LED</b> GaAlAs LED with a high-efficiency because of its double-lens system. This LED has been optimized for fibres having a core diameter of between 50 µm and 100 µm. The diode chip is isolated from the housing.</p> <p>Diode sockets see page 10 and 11.</p>
Connections	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Mounted in diode socket LWMDL</p>  <p>* Color of the identifying sleeve or casting compound</p> </div> <div style="text-align: center;"> <p>Mounted in diode socket LSTD L</p>  <p>* Color of the identifying sleeve or casting compound</p> </div> </div>

### Technical data

<b>Limit ratings (T<sub>a</sub> = 25 °C)</b>	
Forward current (I <sub>F</sub> )	100 mA
Peak forward current (I <sub>FM</sub> )	180 mA (f ≥ 1 MHz; 50%)
Dissipation power (P <sub>tot</sub> )	250 mW
Cut-off voltage (V <sub>R</sub> )	1.5 V
Isolation voltage housing/diode	≥ 30 V
Ambient temperature (T <sub>amb</sub> )	-25 °C to +60 °C
Storage temperature (T <sub>stg</sub> )	-35 °C to +85 °C
Soldering temperature (T <sub>sd</sub> )	260 °C (10 s)
<b>Nominal ratings (T<sub>a</sub> = 25 °C)</b>	
Forward voltage (V <sub>F</sub> )	typ. 1.8 V (I <sub>F</sub> = 100 mA), max. 2.2 V
Wavelength (λ <sub>p</sub> )	870 nm
Spectral bandwidth (Δλ)	60 nm
Wavelength temp. coefficient	typ. 0.3 nm/K
Bandwidth f <sub>c</sub>	typ. 140 MHz
Rise/decay times (t <sub>r</sub> /t <sub>f</sub> )	3 ns
Capacitance (C <sub>r</sub> )	250 pF (V <sub>R</sub> = 0 V, f = 1 MHz)
Launchable optical power (I <sub>F</sub> = 100 mA)	min.
- in G 50/125 fibre	40 µW <sub>pp</sub> / -14 dBm
- in G 62.5/125 fibre	60 µW <sub>pp</sub> / -12 dBm
P <sub>opt</sub> temperature coefficient	-0.6 % / K

### Diode chart

