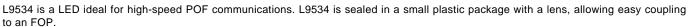
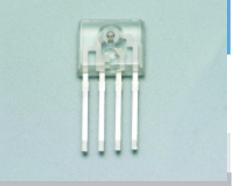
Red LED for optical link L9534

Red LED for 125 Mbps optical link





Features

- Peak emission wavelength: 650 nm
- High-speed response and high output power

Applications

Home networks and short-range high-speed data communications

■ Absolute maximum ratings (Ta=25 °C)

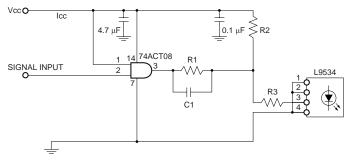
Parameter	Symbol	Value	Unit
Forward current	IF.	40	mA
Reverse voltage	VR	3	\/
Power dissipation *1	Pmax	250	mW
Operating temperature	Topr	-20 to +70	°C
Storage temperature	Tstg	-40 to +85	°C
Soldering	-	230 °C, 5 s, at least 1.8 mm away from package surface	-

^{*1:} Power dissipation going down at a rate of -1.75 mW/°C above Ta=25 °C

■ Electrical and optical characteristics (Ta=25 °C)

Parameter	Symbol	Condition	Min.	Тур.	Max.	Unit
Data rate	fD	NRZ *2	DC	-	125	Mbps
Forward voltage	VF	IF=20 mA	1.8	2.0	2.5	V
Reverse current	lr	VR=3 V	-	-	10	μA
Peak emission wavelength	λр	IF=20 mA	-	650	1	nm
Spectral half width (FWHM)	Δλ	IF=20 mA	-	20	-	nm
Fiber-coupled optical output	Po	*2, 3, 4	-6.5	-	-3	dBm
Pulse distortion	ΔΤ	*2, 3	-2	-	0	ns
Jitter	Δtj	*2, 3	-	-	1.5	ns

^{*2:} Measured with the recommended driver circuit shown below. (Vcc=4.75 to 5.25 V, R1=180 Ω , R2=470 Ω , R3=10 Ω , C1=47 pF)



*3: Input is a pseudo-random bi-phase signal at 125 Mbps (NRZ signal conversion).

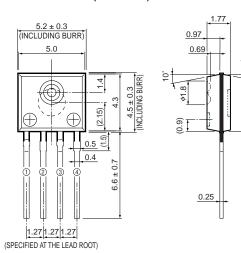
*4: Average value (duty ratio 50 %) measured by using a plastic fiber of φ1 mm. SI-POF and NA=0.5 (GH4001 made by Mitsubishi Rayon).

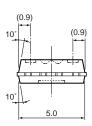
Note)

- · A bypass capacitor (0.1 µF) and another capacitor (4.7 µF) are connected between Vcc and GND at a position within 3 mm from the lead.
- The center of the optical fiber is aligned with the center of the lens on the package. The distance between the fiber end and the lens is 0.1 mm.



■ Dimensional outline (unit: mm)





- ① CATHODE
- ② CATHODE
- 3 ANODE
- **4** CATHODE

Tolerance unless otherwise noted: ±0.1, ±2° Shaded area indicates burr. Values in parentheses indicate reference value.

KLEDA0087EA

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