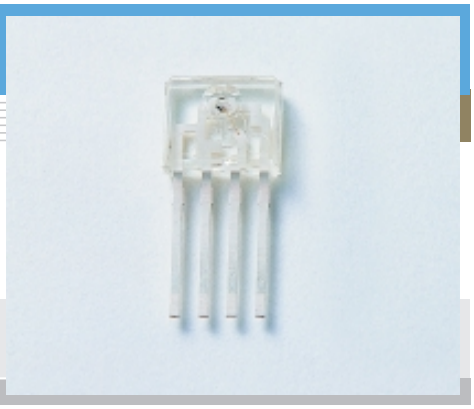
Red LED for optical link
L7726

Emitter for 156 Mbps POF communications



L7726 is designed for high-speed POF (Plastic Optical Fiber) communications. Both devices are molded into miniature plastic packages with lenses, allowing easy and efficient coupling to a POF.

Features

- Red LED for POF data link
- 650 nm emission suitable for POF communications
- High-speed response: fc=100 MHz Typ.
- High output power: Po= -1.5 dBm (I_F=30 mA, ϕ1 mm, POF)
- Designed to be used with S7726

Applications

- Plastic optical fiber communications (FA, office machine, home automation, LAN)
- Data transmission in locations subject to high electromagnetic noise

■ Absolute maximum ratings (Ta=25 °C)

Parameter	Symbol	Value	Unit
Forward current	I_F	50	mA
Power dissipation	Pmax	250 *1	mW
Operating temperature	Topr	0 to 60	°C
Storage temperature	Tstg	-40 to +85	°C
Soldering	-	230 °C, 5 s, at least 1.5 mm away from package surface	-

*1: Derate power dissipation at a rate of 1.7 mW/°C above Ta=25 °C

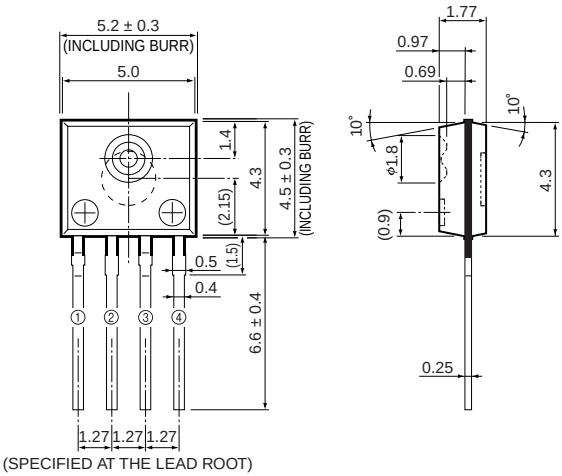
■ Electrical and optical characteristics (Ta=25 °C)

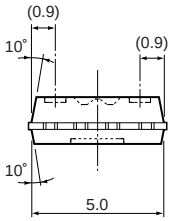
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward voltage	V_F	I_F=30 mA	-	2.3	-	V
Peak emission wavelength	λp	I_F=30 mA	640	650	660	nm
Spectral half width (FWHM)	$\Delta\lambda$	I_F=30 mA	-	10	-	nm
Fiber coupled optical power	Po	I_F=30 mA *2	-	-1.5	-	dBm
Cut-off frequency	fc	I_F=30 mA	-	100	-	MHz

*2: Measured using a 1-meter long optical fiber (GH4001 made by Mitsubishi Rayon).

SOLID STATE DIVISION

■ 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.

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