Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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Fiber Optic Components

156 Mbps Fiber Optic LED

HFE7020-210

FEATURES

- Designed for high-speed data communication
- Converts electrical into optical signal
- 650 nm emission for plastic optical fiber
- High power output (typ. -1.5 dBm @ If = 30 mA)
- High speed response (cut-off frequency typ. 100 MHz)
- High reliability

⚠ WARNING

PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices, or in any other application where failure of the product could result in personal injury. **Failure to comply with these instructions could result in death or serious injury.**

⚠ WARNING

MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided with each product.

Failure to comply with these instructions could result in death or serious injury.

NOTICE

Stress greater than those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. This is a stress rating only and functional operation of the device at these or any other conditions above those indicated in the operational section of this specification is not implied. Exposure to absolute maximum rating conditions for extended periods of time may affect reliability.

HFD7510-2xx

DESCRIPTION

The HFE7020-210 is a high-speed optical transmitter designed for high-speed applications within short plastic optical fiber (POF) systems.

The 650nm wavelength provides a low attenuation in PMMA (polymethylmethacrylat) fibers. The plastic SMA housing delivers a cost-effective module that can be mounted easily on a PCB. The LED is designed to work with Honeywell's high-speed 650 nm receiver, HFE7520-212.

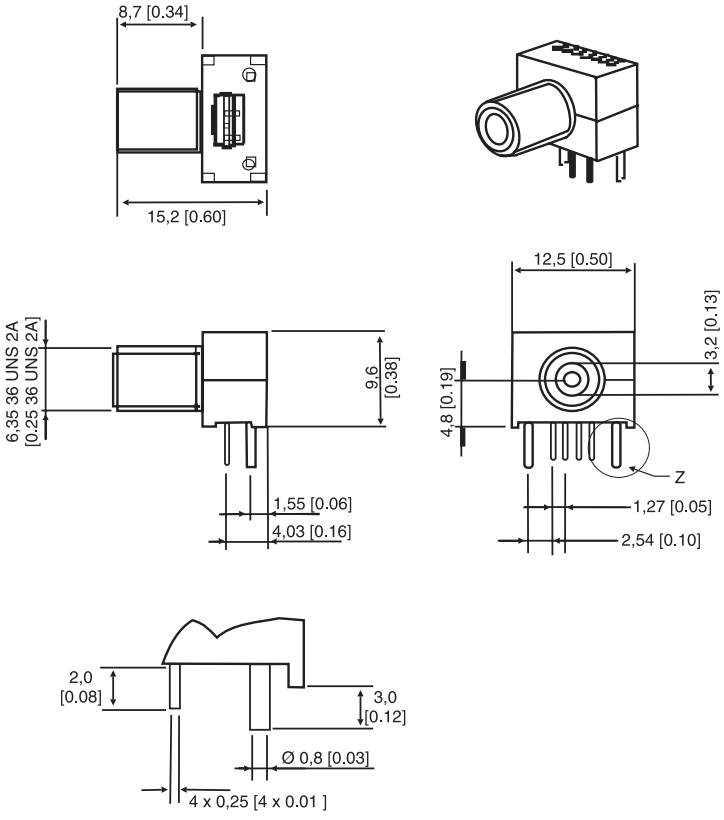
The fiberoptic LED component is mounted in a PA (polyamide) plastic fiber-reinforced housing that offers maximum mechanical stability.

APPLICATIONS

The device is developed for a high-speed optical bus environment. Ethernet and Fast Ethernet optical backbones are similar to these high-speed data transfer systems.

FIGURE 1. PACKAGE INFORMATION

Outline dimensions mm [in] (for reference only)

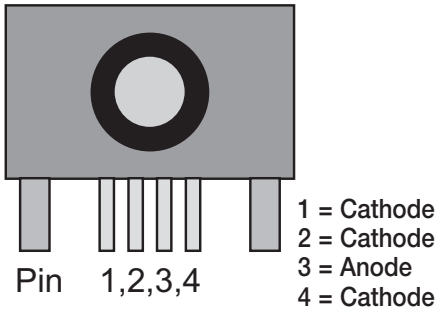


ABSOLUTE MAXIMUM LED RATINGS (T_A = 25 °C [77 °F])

Parameter	Rating
Storage temperature	-40 °C to 85 °C [-40 °F to 185 °F]
Operating temperature	0 °C to 60 °C [32 °F to 140 °F]
Lead solder temperature [1]	230 °C [446 °F] for 5 sec.
Power dissipation [2]	250 mW
Forward current	50 mA

1 At least 1,5 mm [0.06 in] away from package surface.
2 Derate power dissipation at a rate of 1.7 mW/°C above T_A = 25 °C [77 °F].

FIGURE 2. PINOUT



LED ELECTRO-OPTICAL CHARACTERISTICS (T_A = 25 °C [77 °F], V_{CC} = 4.5 V to 5.5 V)

Parameter	Test Condition	Symbol	Min.	Typ.	Max.	Unit
Data rate	If = 30 mA	f_D			156	Mbps
Forward voltage	If = 30 mA	Vf		2.3		V
Peak emission wavelength	If = 30 mA	Δp	640	650	660	nm
Spectral width (FWHM)	If = 30 mA	Δλ		10		nm
Fiber coupled optical power [1]	If = 30 mA	Po	-4.5	-1.5		dBm
Cut-off frequency	If = 30 mA	Fc		100		MHz

1 Measurement at a 1,0 m [39.37] long optical fiber POF.

ORDER GUIDE

Catalog Listing	Description
HFE7020-210	LED in plastic SMA housing

Fiber Optic Components

156 Mbps Fiber Optic LED

HFE7020-210

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective material and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during that period of coverage, Honeywell will repair or replace without charge those items it finds defective. **The foregoing is Buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.**

While we provide application assistance, personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Specifications may change at any time without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

SALES AND SERVICE

Honeywell serves its customers through a worldwide network of sales offices and distributors.

For application assistance, current specifications, pricing, or name of the nearest Authorized Distributor, contact a nearby sales office or call:

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