

# HFE4211/HFE4213

## Fiber Optic Transmitters with ST<sup>®</sup> Optical Connector

### FEATURES

- Cost effective plastic PCB mountable package
- Operates with 100/140, 85/125, 62.5/125, and 50/125 micron fiber cable sizes
- Choices of LED output power
- High optical efficiency
- Optical port interfaces directly with standard ST<sup>®</sup> connectors
- Wide operating temperature range: -40°C to +85°C

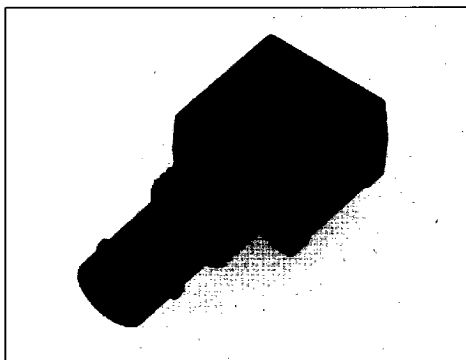
### DESCRIPTION

The HFE4200 series are fiber optic transmitters (LEDs) designed for applications in reliable, cost effective ST style fiber optic communication links. The HFE4200 series transmitters are supplied in the Fiber-DIP package which is designed to be easily assembled on printed circuit boards. The component consists of a base transmitter component assembled into the Fiber-DIP package. The companion receivers are the HFD3200 series products.

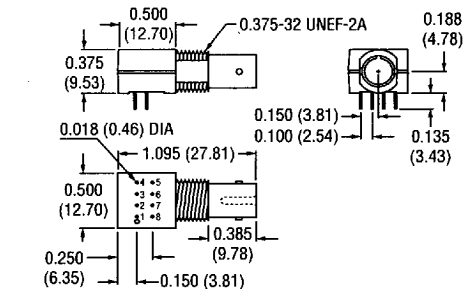
The HFE4211 LEDs are available in four power output options. The HFE4211 incorporates a TO-18 package component with optical and electrical performance characteristics similar to the HFE4070 LED. The typical power coupled into a 50  $\mu$ m core fiber ranges from 8  $\mu$ W to 30  $\mu$ W (-21 dBm to -15 dBm) with a 50 mA drive current.

The HFE4213 LEDs are available in three power output options. The HFE4213 incorporates a TO-18 package component with optical and electrical performance characteristics similar to the HFE4073 LED. The typical power coupled into a 50  $\mu$ m core fiber ranges from 8  $\mu$ W to 30  $\mu$ W (-21 dBm to -15 dBm) with a 50 mA drive current. The HFE4213 LEDs are available in two speed ranges. The response time for the -02X is guaranteed to 6.0 ns with the -03X guaranteed to 3.5 ns.

This data sheet provides the basic electrical and optoelectronic characteristics for the transmitters. If additional information is required, refer to the data sheet for the specific base component.



### OUTLINE DIMENSIONS in inches (mm)



### Pinout

1. NC
2. Anode
3. Cathode
4. NC
5. NC
6. Anode
7. Anode
8. NC

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# HFE4211/HFE4213

Fiber Optic Transmitters with ST<sup>®</sup> Optical Connector

All specifications are typical values at 25°C unless otherwise specified

Part Number	Description	Base Part	Coupled Power into Fiber						Resp. time	
			Min.		Typ.		I <sub>f</sub> mA	Fiber Core (micron)	t <sub>r</sub> (nS)	t <sub>f</sub> (nS)
			μW	dBm	μW	dBm				
HFE4211 -013	LED	HFE4070	6	-22	8	-21	50	50	8	10
-014	LED		10	-20	13	-19	50	50	8	10
-015	LED		15	-18	20	-17	50	50	8	10
-016	LED		25	-16	30	-15	50	50	8	10
HFE4213 -023	LED	HFE4073	6	-22	8	-21	50	50	4	6
-024	LED		10	-20	13	-19	50	50	4	6
-025	LED		15	-18	20	-17	50	50	4	6
-033	LED		6	-22	8	-21	50	50	2.5	3.5
-034	LED		10	-20	13	-19	50	50	2.5	3.5
-035	LED		15	-18	20	-17	50	50	2.5	3.5

**WARNING:** Under certain application conditions, the infrared optical output of this device may exceed Class 1 eye safety limits, as defined by IEC 825-1 (1993-11). Do not use magnification (such as a microscope or other focusing equipment) when viewing the device's output.

**CAUTION:** The inherent design of this component causes it to be sensitive to electrostatic discharge (ESD). To prevent ESD-induced damage and/or degradation to equipment, take normal ESD



Honeywell reserves the right to make changes in order to improve design and supply the best products possible.

**Honeywell**

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