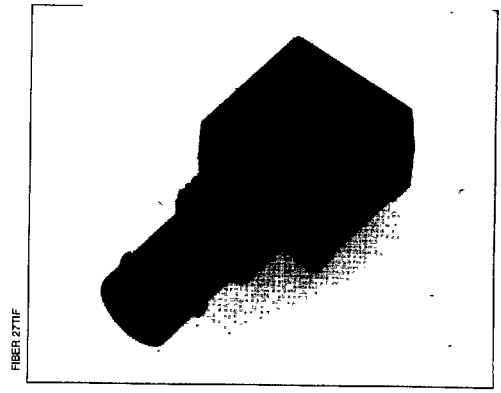
HFD3200 and HFE4200 Series

ST® Fiber-DIP (ST-FD) LEDs and Integrated Receivers

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® connectors
- Wide operating temperature range: -40°C to +100°C



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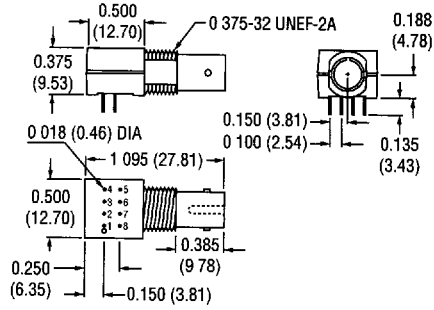
DESCRIPTION

The Fiber-DIP devices consist of a Base Part mounted in a Plastic ST® Fiber-DIP connector. LEDs and receivers are assembled to insure the best power output or responsivity for each dash number. For more information on the Base Part refer to the relevant pages. Specifications are guaranteed limits.

OUTLINE DIMENSIONS in inches (mm)



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Honeywell

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LEDs

Part Number	Description	Base Part	Coupled Power Into Fiber				t_r, t_f ns	Pinout							
			µW	dBm	I_f mA	Core (4)		1	2	3	4	5	6	7	8
HFE4211 -012			3	-25	50	50	10	N	A	K	N	N	A	A	N
-013	Std. LED	HFE4020	6	-22	50	50	10	N	A	K	N	N	A	A	N
-014	Fiber-DIP	or	10	-20	50	50	10	N	A	K	N	N	A	A	N
-015	package	HFE4070	15	-18	50	50	10	N	A	K	N	N	A	A	N
-016			25	-16	50	50	10	N	A	K	N	N	A	A	N
HFE4213 -022	High speed LED		3	-25	50	50	6	N	A	K	N	N	A	A	N
-023	Fiber-DIP	HFE4073	6	-22	50	50	6	N	A	K	N	N	A	A	N
-024	package		10	-20	50	50	6	N	A	K	N	N	A	A	N
-025			15	-18	50	50	6	N	A	K	N	N	A	A	N
HFE4213 -032	Highest speed LED		3	-25	50	50	3.5	N	A	K	N	N	A	A	N
-033	Fiber-DIP	HFE4073	6	-22	50	50	3.5	N	A	K	N	N	A	A	N
-034	package		10	-20	50	50	3.5	N	A	K	N	N	A	A	N
-035			15	-18	50	50	3.5	N	A	K	N	N	A	A	N

DIGITAL INTEGRATED RECEIVERS (TTL Output, V_{CC} = 5.0 V)

Part Number	Description	Base Part	Sensitivity (1)		I_{CC} mA	PWD ns (3)	Output (2)	Pinout							
			µW	dBm				1	2	3	4	5	6	7	8
HFD3212 -002	Differentiating, 10 Mbps	HFD3020-002	0.6	-32	20	50	Inv.	N	V	N	N	N	O	G	N
-003	Differentiating, 10 Mbps	HFD3020-002	0.6	-32	20	50	Inv.	N	V	G	N	N	O	G	N
HFD3213 -002	Direct coupled, 5 Mbps	HFD3023-002	2.8	-25	15	60	Inv.	N	V	G	N	N	O	G	N

ANALOG INTEGRATED RECEIVERS (V_{CC} = 5.0 V)

Part Number	Description	Base Part	Responsivity (1) mV/µW	Bandwidth (Typical) MHz	Output (RMS) Noise	I_{CC} mA	Pinout							
							1	2	3	4	5	6	7	8
HFD3216 -002	Linear output	HFD3038-002	5	125	0.53 mV	15(5)	N	O	E	N	N	V	E	N

Pinout Definition

A = Anode
C = Capacitor
G = Ground (case)
I = Input
K = Cathode
N = Not used
O = Output
V = +V (V_{CC})
E = -V (V_{EE})

Notes

1. Receiver sensitivity and responsivity are measured using a 100/140 micron fiber optic cable.
2. Inv = Output is low (<0.4 V) when light is striking the device
3. Pulse Width Distortion is measured at 1 5 V with an input signal of 100 µW, 2 5 MHz, 50% duty cycle
4. Fiber Core is 50/125 micron (50).
5. I_{EE}.