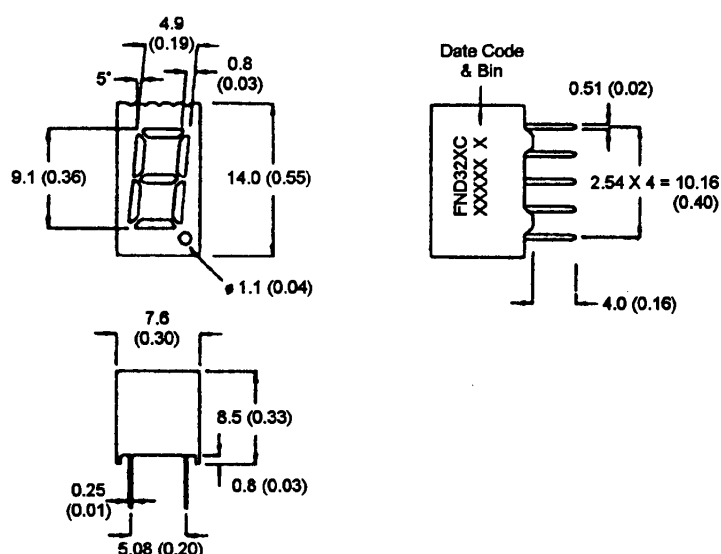


**S/H AlGaAs Red FND320C, FND327C, and FND328C
(UP-GRADE FOR THE FND35XC and FND36XC)**

PACKAGE DIMENSIONS



NOTES: Dimensions are in mm (inch).
All pins are 0.5 (0.02) diameter
Tolerances are ± 0.25 (0.1) unless otherwise noted.

FEATURES

Easy to read digits.
Common anode or cathode.
Low power consumption.
Bold segments that are highly visible.
High brightness with high contrast
White segments on a grey face.
Directly compatible with integrated circuits.
Rugged plastic/epoxy construction.

APPLICATIONS

Digital readout displays.
Instrument panels.

MODEL NUMBERS

<u>Part number</u>	<u>Color</u>	<u>Description</u>
FND320C	S/H AlGaAs Red	1 Digit, Common Anode, Rt. Hand Decimal
FND327C	S/H AlGaAs Red	1 Digit, Common Cathode, Rt Hand Decimal.
FND328C	S/H AlGaAs Red	Overflow, Common Cathode, Rt Hand Decimal.

(For other color options, contact your local area Sales Office)

ABSOLUTE MAXIMUM RATING ($T_A=25^\circ\text{C}$ unless otherwise specified)

**AlGaAs Red
FND32XC**

Part number		Units
Continuous forward current (I_f)		
Per Segment.....	30	mA
Peak forward current per die (I_f).....	200	mA
(at $f = 10.0$ KHz, Duty factor = 1/10)		
Power dissipation (P_D).....	100*	mW
*Derate Linearly from 25°C	0.50	mW/ $^\circ\text{C}$
Reverse voltage per dice.....		5V
Operating and Storage temperature range.....		- 20°C to $+80^\circ\text{C}$
Lead soldering time (at 1/16 inch from the bottom of lamp).....		5 seconds @ 230°C

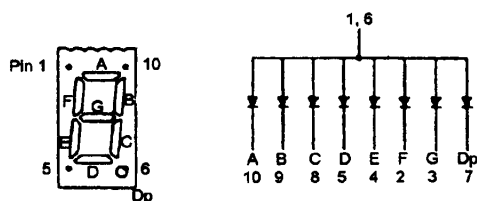
ELECTRO - OPTICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

**AlGaAs Red
FND
32XC**

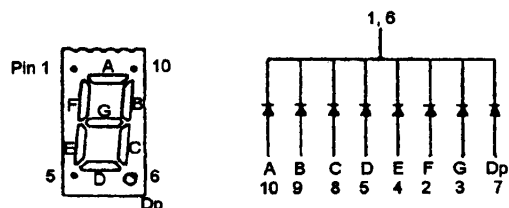
<u>Part number</u>		Test Condition
Luminous intensity (ucd)		
minimum	1500	$I_f = 20$ mA
typical	3000	$I_f = 20$ mA
Forward voltage (V_f)		
typical	1.8	$I_f = 20$ mA
maximum	2.5	$I_f = 20$ mA
Peak wavelength (nm)	660	$I_f = 20$ mA
Spectral line half width (nm)	30	$I_f = 20$ mA
Reverse breakdown voltage (V_R)	5	$I_R = 100$ uA

PINOUT

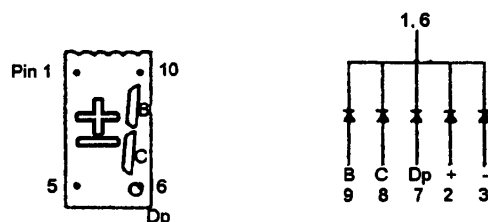
FND320C - Common Anode



FND327C - Common Cathode



FND328C - Overflow, Common Cathode



GRAPHICAL DETAIL: AlGaAs Red ($T_A = 25^\circ\text{C}$ unless otherwise specified)

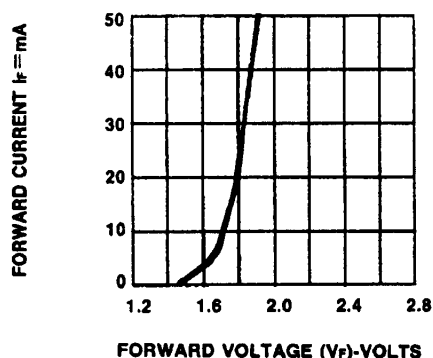


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

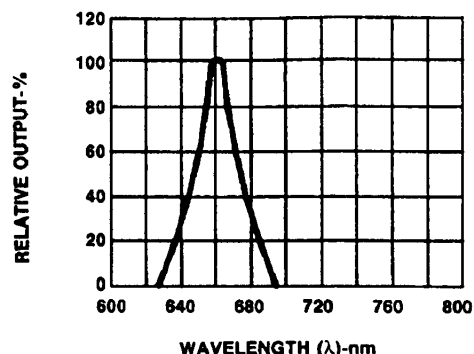


Fig.2 SPECTRAL RESPONSE

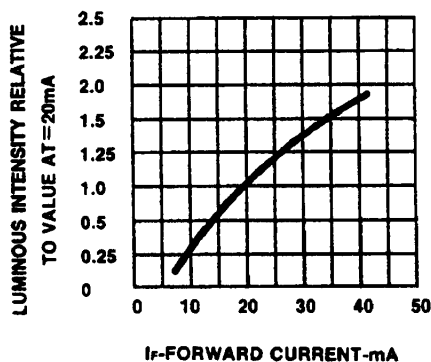


Fig.3 RELATIVE LUMINOUS INTENSITY
VS. FORWARD CURRENT

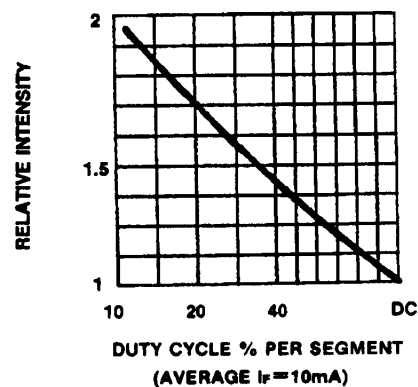


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

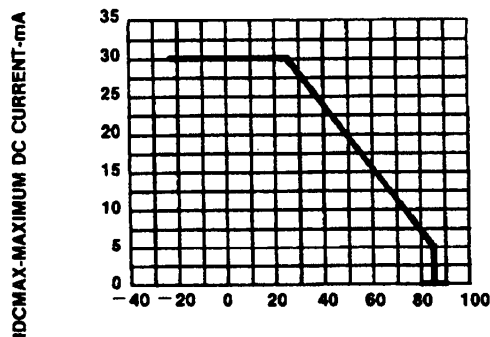


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER
SEGMENT VS. A FUNCTION OF AMBIENT
TEMPERATURE.

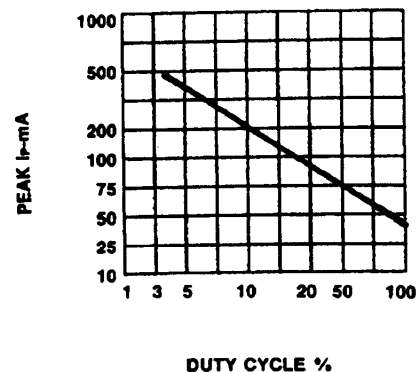


Fig. 6 MAX PEAK CURRENT VS. DUTY CYCLE %
(REFRESH RATE $f = 1 \text{ KHz}$)

The logo consists of two thick red horizontal bars. The top bar is above the word "FAIRCHILD" in a bold, black, sans-serif font. The bottom bar is below "FAIRCHILD" and above the word "SEMICONDUCTOR" in a smaller, black, sans-serif font. A trademark symbol (TM) is located to the right of "SEMICONDUCTOR".**FAIRCHILD****SEMICONDUCTOR™**

0.362 INCH (9.2MM) SINGLE DIGIT STICK DISPLAY

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