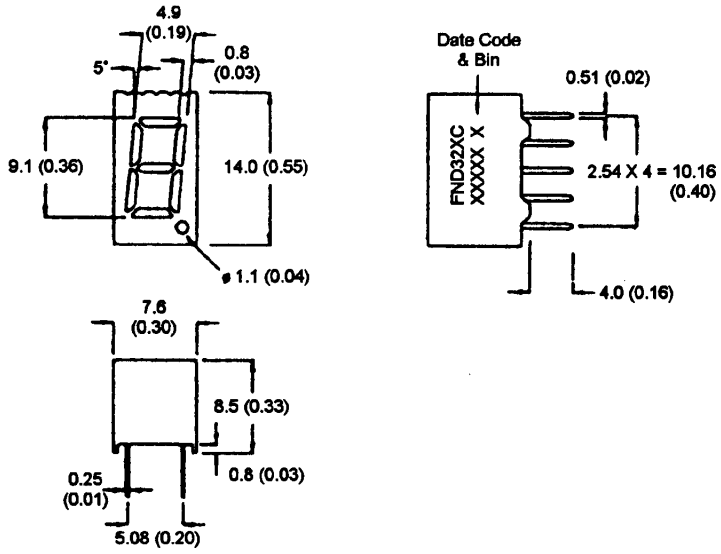
FAIRCHILD
SEMICONDUCTOR™

0.362 INCH (9.2MM) SINGLE DIGIT STICK DISPLAY

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

Part number	Color	Description
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)

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ABSOLUTE MAXIMUM RATING (T_A=25°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/°C

Reverse voltage per dice.....5V
Operating and Storage temperature range.....- 20°C to +80°C
Lead soldering time (at 1/16 inch from the bottom of lamp).....5 seconds @ 230°C

ELECTRO - OPTICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

	AlGaAs Red FND 32XC	Test Condition
Part number		
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

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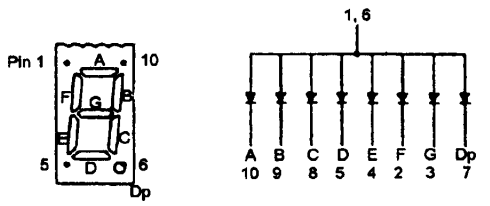
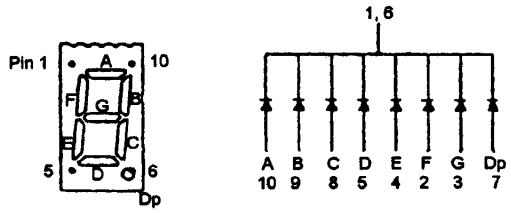
PINOUT

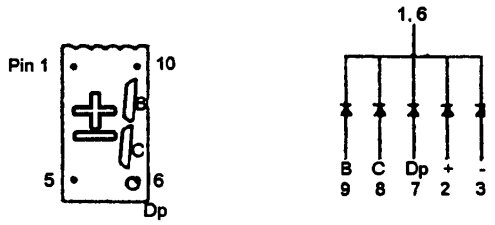
FND320C - Common Anode



FND327C - Common Cathode



FND328C - Overflow, Common Cathode



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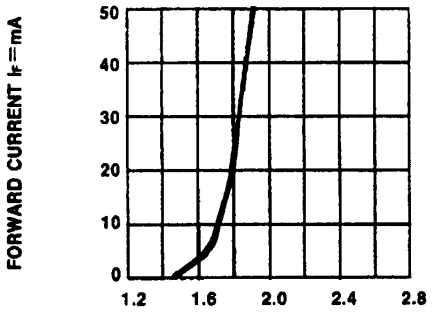
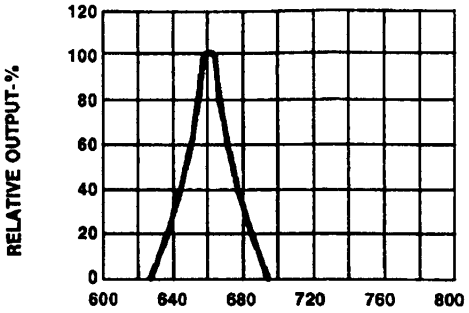
GRAPHICAL DETAIL: AlGaAs Red (T_A = 25°C unless otherwise specified)



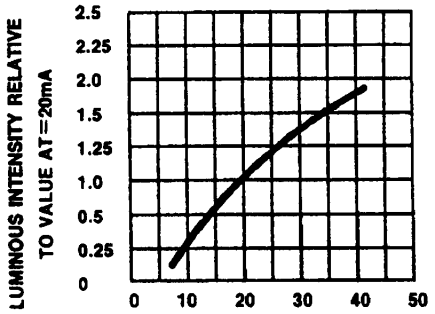
FORWARD VOLTAGE (VF)-VOLTS

Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE.



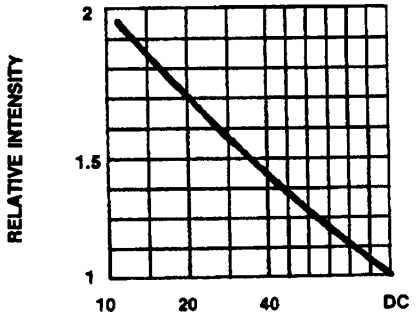
WAVELENGTH (λ)-nm

Fig.2 SPECTRAL RESPONSE



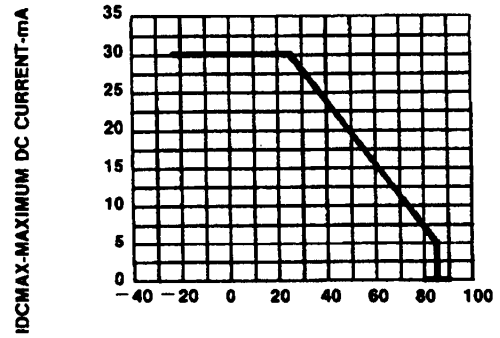
IF-FORWARD CURRENT-mA

Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



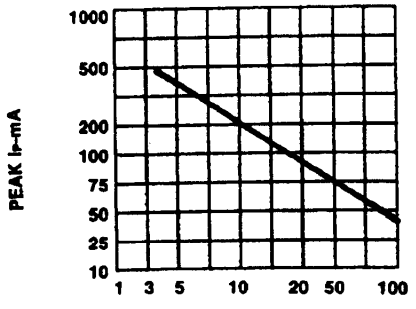
DUTY CYCLE % PER SEGMENT (AVERAGE IF=10mA)

Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE



TA AMBIENT TEMPERATURE °C

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



DUTY CYCLE %

Fig. 6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE f=1 KHz)

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2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.