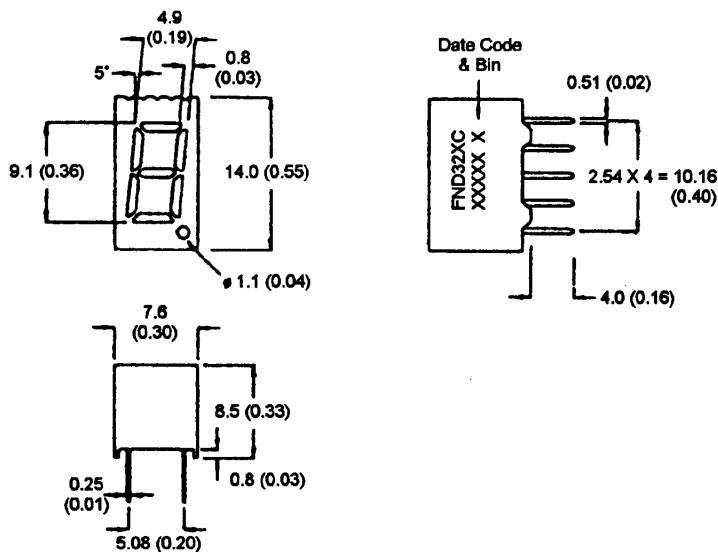


**S/H AlGaAs Red FND320C, FND327C, and FND328C  
(UP-GRADE FOR THE FND35XC and FND36XC)**

**PACKAGE DIMENSIONS**



**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.

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

**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**

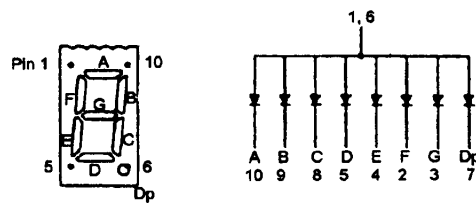
| Part number   |      | Units                                      |
|---|------|--|
| Continuous forward current ( $I_f$ )                            |      |  |
| Per Segment.....  | 30   | mA   |
| Peak forward current per die ( $I_{f1}$ ).....                  | 200  | mA   |
| (at $f = 10.0$ KHz, Duty factor = 1/10)                         |      |  |
| Power dissipation ( $P_D$ ).....                                | 100* | mW   |
| *Derate Linearly from $25^\circ\text{C}$ .....                  | 0.50 | mW/ $^\circ\text{C}$                       |
| Reverse voltage per dice.....                                   |      | 5V   |
| Operating and Storage temperature range.....                    |      | $-20^\circ\text{C}$ to $+80^\circ\text{C}$ |
| Lead soldering time (at 1/16 inch from the bottom of lamp)..... |      | 5 seconds @ $230^\circ\text{C}$            |

**ELECTRO - OPTICAL CHARACTERISTICS** ( $T_A = 25^\circ\text{C}$  unless otherwise specified)**AlGaAs Red  
FND  
32XC**

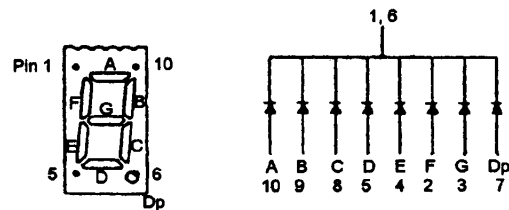
| Part number                         |      | Test Condition |
|-------------------------------------|------|----------------|
| Luminous intensity (ucd)            |      |                |
| minimum                             | 1500 | $I_f = 20$ mA  |
| typical                             | 3000 | $I_f = 20$ 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**

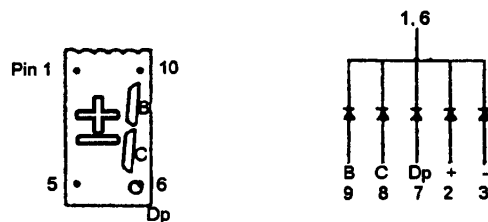
**FND320C - Common Anode**



**FND327C - Common Cathode**



**FND328C - Overflow, Common Cathode**



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

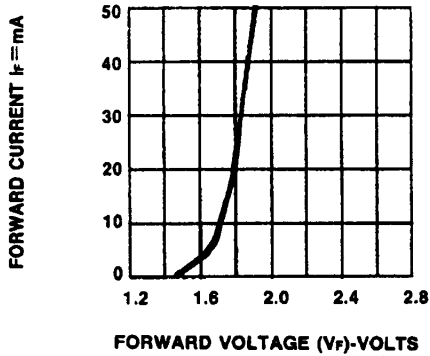


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

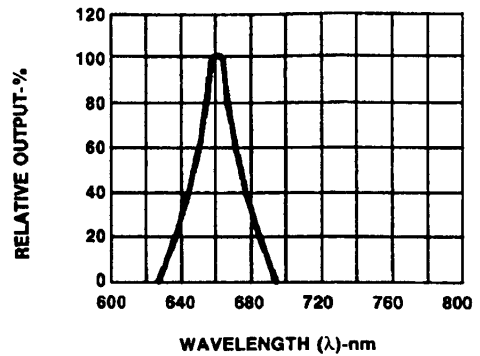


Fig.2 SPECTRAL RESPONSE

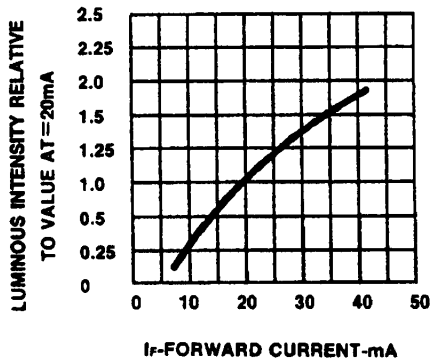


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

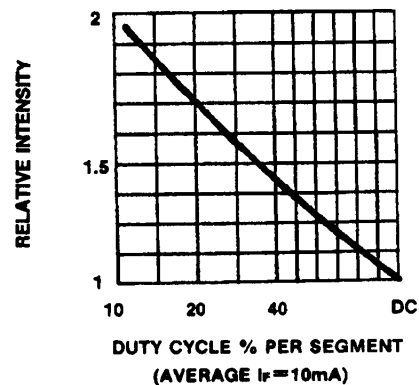


Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

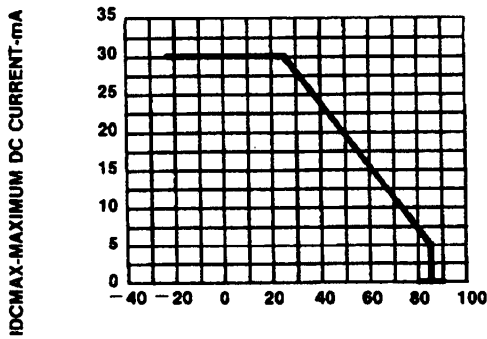


Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE.

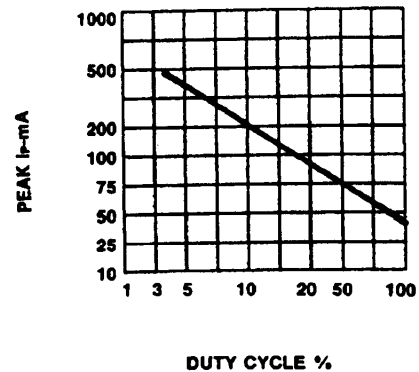


Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE % (REFRESH RATE  $f = 1 \text{ KHz}$ )

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