

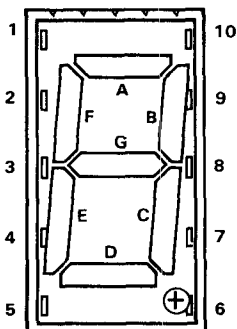
7-Segment Numeric Displays

| Device No. | Character Height Inches | Polarity | Color | Description | Decimal Point | V_F $I_F = 20 \text{ mA/Seg}$ V | Luminous/Typ Intensity/Seg $I_F = 20 \text{ mA}$ μcd | Data Sheet Page No. |
|------------|-------------------------|----------|-------|------------------------|---------------|---|---|---------------------|
| FND350 | .362 | CA | Red | 7-Segment Display | RH | 1.7 | 450 | 3-5 |
| FND357 | .362 | CC | Red | 7-Segment Display | RH | 1.7 | 450 | 3-5 |
| FND358 | .362 | CC | Red | Overflow ± 1 Digit | RH | 1.7 | 450 | 3-9 |
| FND360 | .362 | CA | Red | 7-Segment Display | RH | 1.7 | 900 | 3-5 |
| FND367 | .362 | CC | Red | 7-Segment Display | RH | 1.7 | 900 | 3-5 |
| FND368 | .362 | CC | Red | Overflow ± 1 Digit | RH | 1.7 | 900 | 3-9 |
| FND500 | .500 | CC | Red | 7-Segment Display | RH | 1.7 | 600 | 3-12 |
| FND501 | .500 | CC | Red | Overflow ± 1 Digit | RH | 1.7 | 600 | 3-15 |
| FND507 | .500 | CA | Red | 7-Segment Display | RH | 1.7 | 600 | 3-12 |
| FND508 | .500 | CA | Red | Overflow ± 1 Digit | RH | 1.7 | 600 | 3-15 |
| FND530 | .500 | CC | Grn | 7-Segment Display | RH | 2.2 | 2000 | 3-18 |
| FND531 | .500 | CC | Grn | Overflow ± 1 Digit | RH | 2.2 | 2000 | 3-21 |
| FND537 | .500 | CA | Grn | 7-Segment Display | RH | 2.2 | 2000 | 3-18 |
| FND538 | .500 | CA | Grn | Overflow ± 1 Digit | RH | 2.2 | 2000 | 3-21 |
| FND540 | .500 | CC | Yel | 7-Segment Display | RH | 2.2 | 1000 | 3-18 |
| FND541 | .500 | CC | Yel | Overflow ± 1 Digit | RH | 2.2 | 2000 | 3-21 |
| FND547 | .500 | CA | Yel | 7-Segment Display | RH | 2.2 | 1000 | 3-18 |
| FND548 | .500 | CA | Yel | Overflow ± 1 Digit | RH | 2.2 | 2000 | 3-21 |
| FND550 | .500 | CC | Amb | 7-Segment Display | RH | 2.2 | 2000 | 3-18 |
| FND551 | .500 | CC | Amb | Overflow ± 1 Digit | RH | 2.2 | 2000 | 3-21 |
| FND557 | .500 | CA | Amb | 7-Segment Display | RH | 2.2 | 2000 | 3-18 |
| FND558 | .500 | CA | Amb | Overflow ± 1 Digit | RH | 2.2 | 2000 | 3-21 |
| FND560 | .500 | CC | Red | 7-Segment Display | RH | 2.2 | 1200 | 3-12 |
| FND561 | .500 | CC | Red | Overflow ± 1 Digit | RH | 1.7 | 1200 | 3-15 |
| FND567 | .500 | CA | Red | 7-Segment Display | RH | 1.7 | 1200 | 3-12 |
| FND568 | .500 | CA | Red | Overflow ± 1 Digit | RH | 1.7 | 1200 | 3-15 |
| FND800 | .800 | CC | Red | 7-Segment Display | RH | 1.7 | 1100 | 3-24 |
| FND807 | .800 | CA | Red | 7-Segment Display | RH | 1.7 | 1100 | 3-24 |
| MAN71A | .300 | CA | Red | 7-Segment Display | RH | 1.6 | 250 | 3-28 |
| MAN72A | .300 | CA | Red | 7-Segment Display | LH | 1.6 | 250 | 3-28 |
| MAN73A | .300 | CA | Red | Overflow ± 1 Digit | None | 1.7 | 450 | 3-28 |
| MAN74A | .300 | CC | Red | 7-Segment Display | RH | 1.6 | 250 | 3-28 |

Connection Diagram Typical Electrical Characteristics

FND350, FND357 FND360, FND367

Pin Connections
(Front View)



| Pin | FND357 / 367 | FND350 / 360 |
|-----|----------------|---------------|
| 1 | Common Cathode | Common Anode |
| 2 | Segment F | Segment F |
| 3 | Segment G | Segment G |
| 4 | Segment E | Segment E |
| 5 | Segment D | Segment D |
| 6 | Common Cathode | Common Anode |
| 7 | Decimal Point | Decimal Point |
| 8 | Segment C | Segment C |
| 9 | Segment B | Segment B |
| 10 | Segment A | Segment A |

Electrical Characteristics $T_A = 25^\circ\text{C}$

| Symbol | Characteristics | Min | Typ | Max | Units | Test Conditions |
|----------------|--|-----|----------|-----|----------------|--|
| V_F | Forward Voltage | | 1.7 | 2.0 | V | $I_F = 20 \text{ mA}$ |
| BV_R | Reverse Breakdown Voltage | 3.0 | 12 | | V | $I_R = 1.0 \text{ mA}$ |
| I_O | Axial Luminous Intensity Each Segment (Note 1) | | | | μcd | $I_F = 20 \text{ mA}$ |
| | FND350, 357 | 240 | 450 | | | |
| | FND360, 367 | 590 | 900 | | | |
| ΔI_O | Intensity Matching, Segment-to-Segment (Note 3) | | ± 33 | | % | $I_F = 20 \text{ mA}$ |
| | Intensity Matching Within One Intensity Class | | ± 20 | | % | $I_F = 20 \text{ mA}$, all segments at once |
| L_O | Average Segment Luminance (Note 2) | | | | ftL | $I_F = 20 \text{ mA}$ |
| | FND350, 357 | | 26 | | | |
| | FND360, 367 | | 52 | | | |
| $\theta_{1/2}$ | Viewing Angle to Half Intensity | | ± 27 | | degrees | |
| λ_{pk} | Peak Wavelength | | 665 | | nm | $I_F = 20 \text{ mA}$ |

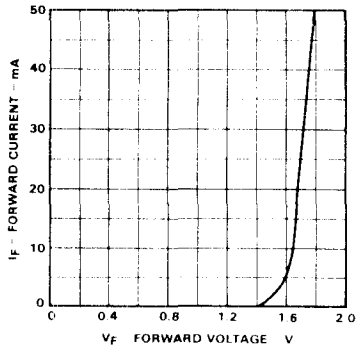
Notes

1. Typical operating current under single digit (dc) drive is approximately 2 to 20 mA average per segment for most ambient light conditions. The 125 mA specification is a representative peak current.
2. Measured on mechanical axis of package. See Average Luminous Intensity curve for other forward currents.
3. Segment-to-segment from average segment intensity.

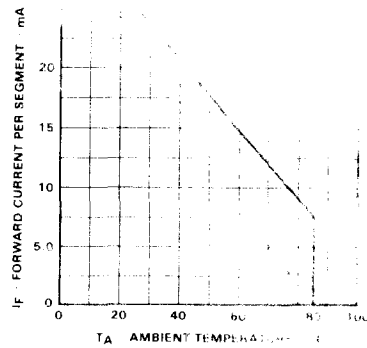
Typical Electrical Characteristic Curves

FND350, FND357
FND360, FND367

Forward Current vs Forward Voltage

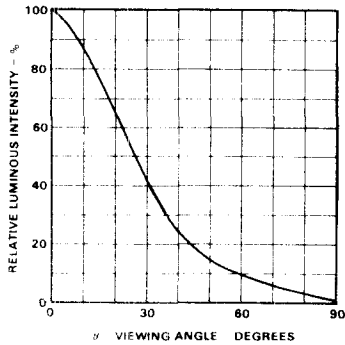


**Maximum Average Current Rating
vs Ambient Temperature**

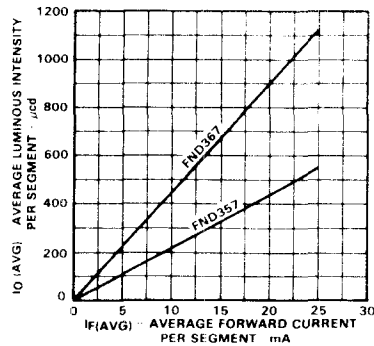


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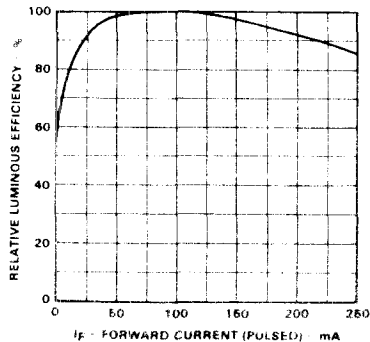
Angular Distribution of Luminous Intensity



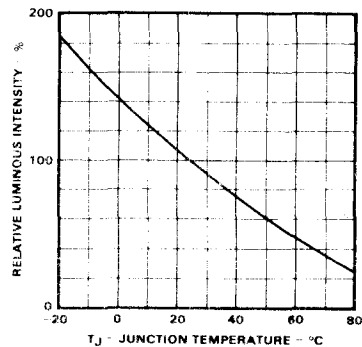
**Average Luminous Intensity
vs Average Forward Current**



**Relative Luminous Efficiency (mcd per mA)
vs Peak Current per Segment**



**Relative Luminous Intensity
vs Junction Temperature**



Typical Electrical Characteristic Curves (Cont'd)

FND350, FND357
FND360, FND367

Emission Spectrum

