

Red GaAsP 0.5-Inch 7-Segment Numeric LED Displays

Optoelectronic Products

FND500, FND507 FND560, FND567

General Description

The FND500, FND507, FND560 and FND567 are red GaAsP single-digit 7-Segment LED displays with a 0.5-inch character height. These displays are designed for applications in which the viewer is within twenty feet of the display.

Low Forward Voltage—Typically $V_F = 1.7$ V
Fits Standard DIP Sockets with 0.6-Inch Pin Row
Maximized Contrast Ratio With Integral Lens Cap
Horizontal Stacking 0.6-Inch Minimum,
 1-Inch Typical

FND560/567 Suitable For Use in High Ambient Light

FND500 Common Cathode, Right-Hand Decimal Point

FND507 Common Anode, Right-Hand Decimal Point

FND560 Common Cathode, Right-Hand Decimal Point, High Brightness

FND567 Common Anode, Right-Hand Decimal Point, High Brightness

Absolute Maximum Ratings

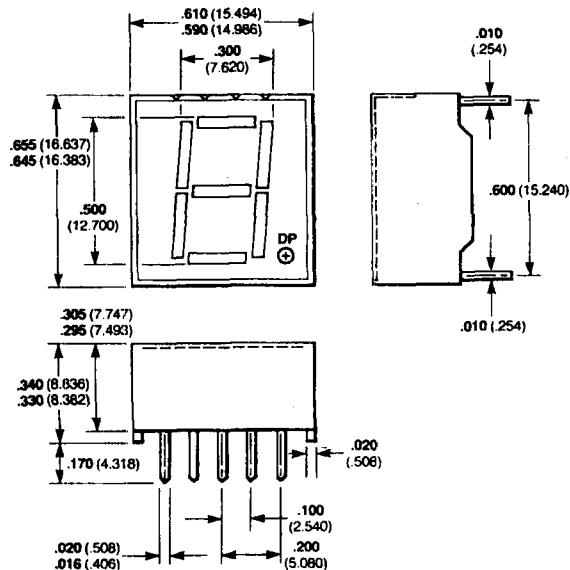
Maximum Temperature and Humidity

Storage Temperature	-25°C to +85°C
Operating Temperature	-25°C to +85°C
Pin Temperature (Soldering, 5 s)	260°C
Relative Humidity at 65°C	98%

Maximum Voltage and Currents

V_R	Reverse Voltage	3.0 V
I_F	Average Forward dc Current/Segment or Decimal Point	25 mA
	Derate from 25°C Ambient Temperature	0.3 mA/°C
I_{pk}	Peak Forward Current Segment or Decimal Point (100 μ s pulse width) 1000 pps, $T_A = 25^\circ\text{C}$	200 mA

Package Outline



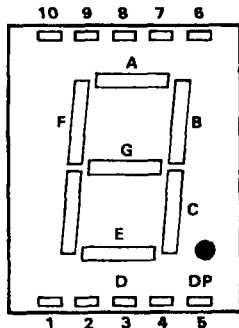
Notes

All dimensions in inches bold and millimeters (parentheses)
 Tolerance unless specified = $\pm .015$ ($\pm .381$)

Connection Diagram Typical Electrical Characteristics

FND500, FND507 FND560, FND567

Pin Connections (Front View)



Pin FND507/567

- 1 Segment E
- 2 Segment D
- 3 Common Anode
- 4 Segment C
- 5 Decimal Point
- 6 Segment B
- 7 Segment A
- 8 Common Anode
- 9 Segment F
- 10 Segment G

FND500/560

- Segment E
- Segment D
- Common Cathode
- Segment C
- Decimal Point
- Segment B
- Segment A
- Common Cathode
- Segment F
- Segment G

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

Symbol	Characteristic	Min	Typ	Max	Units	Test Conditions
V_F	Forward Voltage	1.5	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, Average Each-Segment FND500, FND507 FND560, FND567	300 740	600 1200		μcd μcd	$I_F = 20 \text{ mA}$ $I_F = 20 \text{ mA}$
ΔI_O	Intensity Matching, Segment-to-Segment Intensity Matching Within One Intensity Class		± 33 ± 20		% %	$I_F = 20 \text{ mA}$ $I_F = 20 \text{ mA}$, all segments at once
L_O	Average Segment Luminance FND500, FND507 FND560, FND567		35 70		ftL ftL	$I_F = 20 \text{ mA}$ $I_F = 20 \text{ mA}$
$\theta_{1/2}$	Viewing Angle to Half Intensity		± 27		degrees	
λ_{pk}	Peak Wavelength		665		nm	$I_F = 20 \text{ mA}$