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

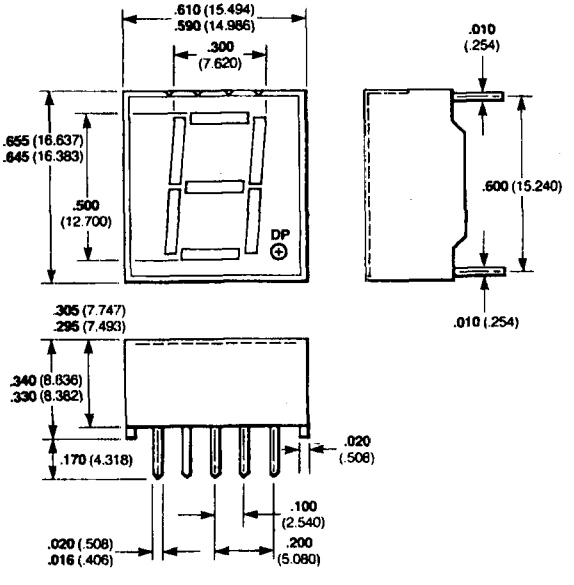
Maximum Temperature and Humidity

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 μs pulse width) 1000 pps, T_A = 25°C	200 mA

Package Outline

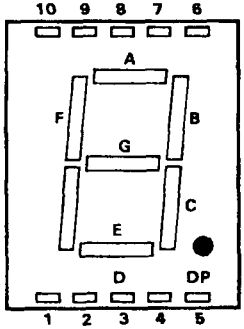


Notes
All dimensions in inches **bold** and millimeters (parentheses)
Tolerance unless specified = ±.015 (±.381)

Connection Diagram
Typical Electrical Characteristics

FND500, FND507
FND560, FND567

Pin Connections
(Front View)



Pin	FND507/567	FND500/560
1	Segment E	Segment E
2	Segment D	Segment D
3	Common Anode	Common Cathode
4	Segment C	Segment C
5	Decimal Point	Decimal Point
6	Segment B	Segment B
7	Segment A	Segment A
8	Common Anode	Common Cathode
9	Segment F	Segment F
10	Segment G	Segment G

Electrical and Radiant Characteristics $T_A = 25°C$

Symbol	Characteristic	Min	Typ	Max	Units	Test Conditions
V_F	Forward Voltage	1.5	1.7	2.0	V	I_F = 20 mA
BV_R	Reverse Breakdown Voltage	3.0	12		V	I_R = 1.0 mA
I_O	Axial Luminous Intensity, Average Each Segment					
	FND500, FND507	300	600		µcd	I_F = 20 mA
	FND560, FND567	740	1200		µcd	I_F = 20 mA
ΔI_O	Intensity Matching, Segment-to-Segment		±33		%	I_F = 20 mA
	Intensity Matching Within One Intensity Class		±20		%	I_F = 20 mA, all segments at once
L_O	Average Segment Luminance					
	FND500, FND507		35		ftL	I_F = 20 mA
	FND560, FND567		70		ftL	I_F = 20 mA
$\theta_{½}$	Viewing Angle to Half Intensity		±27		degrees	
λ_{pk}	Peak Wavelength		665		nm	I_F = 20 mA