

67025 4N41-SEVEN SEGMENT HERMETICALLY SEALED DISPLAY

Mii

OPTOELECTRONIC PRODUCTS
DIVISION

Features:

- Hermetically Sealed
- Left Hand Decimal
- TTL Compatible
- High Luminous Intensity
- Large Character Height

Applications:

- High reliability systems
- Instrumentation panels
- Communication equipment
- Medical equipment

DESCRIPTION

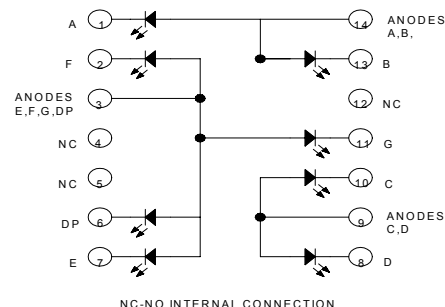
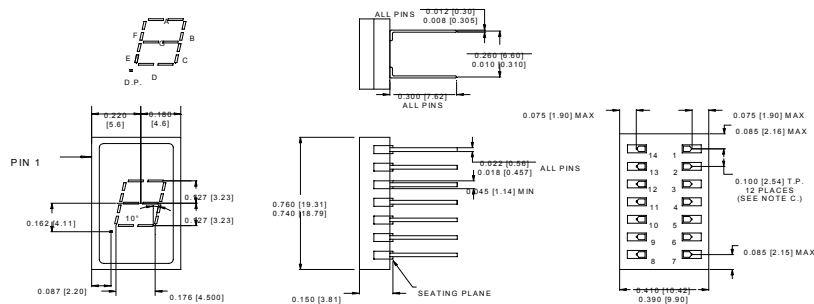
The **67025** (4N41) is a hermetically sealed seven segment display. The high luminous intensity and large character height make the 67025 ideal for most applications. This high reliability display is available in standard and screened versions.

ABSOLUTE MAXIMUM RATINGS

Storage Temperature.....	-65°C to +125°C
Operating Free-Air Temperature Range.....	-55°C to +100°C
Lead Solder Temperature (1/16" [1.6mm] below seating plane for 10s).....	260°C
Reverse Voltage at 25°C Free-Air Temperature	
Each Segment	6V
Decimal Point.....	3V
Peak Forward Current at (or below) 70°C Free-Air Temperature (derate linearly to 100°C at the rate of 6.7mA/°C)	
Each Segment or Decimal Point	200mA
Average Forward Current at (or below) 70°C Free-Air Temperature (derate linearly to 100°C at the rate of 1mA/°C for each segment or 8mA/°C for total device)	
Each Segment or Decimal Point	.30mA

Package Dimensions

Schematic Diagram



- NOTES:**
- a. All linear dimensions are in millimeters and parenthetically in inches.
 - b. Centerlines of character segments and decimal points are shown as dashed lines. Associated dimensions are nominal.
 - c. The true-position pin spacing is 2.54mm (0.10") between centerlines. Each centerline is located within 0.26mm (0.010") of it's true longitudinal position relative to pins 4 and 11.

ELECTRICAL CHARACTERISTICS

 $T_A = 25^\circ\text{C}$ unless otherwise specified.

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Luminous Intensity 1	I_V	200	700		μcd	$I_F = 20\text{mA}$
Wavelength at Peak Emission	λ_P	640	660	680	nm	$I_F = 20\text{mA}$
Spectral Bandwidth			20		nm	$I_F = 20\text{mA}$
Static Forward Voltage	V_F	3	3.4	3.8	V	$I_F = 20\text{mA}$
Average Temperature Coefficient of Static Voltage	$\frac{\Delta V_F}{\Delta T_A}$		-2.7		mV/ $^\circ\text{C}$	$I_F = 20\text{mA}$, $t_A = 0^\circ\text{C}$ to 100°C
Static Reverse Current	I_R			100	μA	$V_R = 6\text{V}$
Anode-to-Cathode Capacitance	C		85		pF	$V_R = 0\text{V}$, $f = 1\text{MHz}$

NOTES:

- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (International Commission on Illumination) eye-response curve.

RELATIVE SPECTRAL CHARACTERISTICS

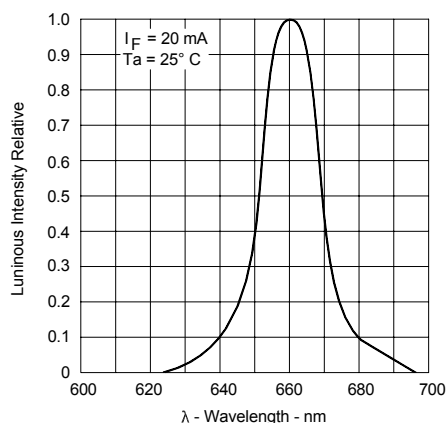


FIGURE 1

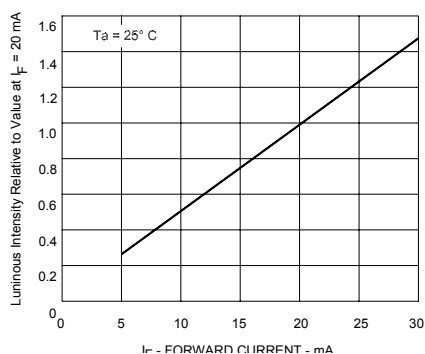
RELATIVE LUMINOUS INTENSITY
vs
FORWARD CURRENT

FIGURE 3

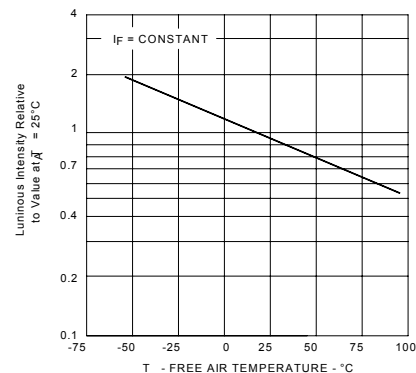
RELATIVE LUMINOUS INTENSITY
vs
FREE-AIR TEMPERATURE

FIGURE 2

RECOMMENDED OPERATING CONDITIONS:

PARAMETER	SYMBOL	MIN	MAX	UNITS
Forward Current	I_F	20	30	mA
Operating Temperature	T_A	-55	100	$^\circ\text{C}$

SELECTION GUIDE

PART NUMBER	PART DESCRIPTION
67025-001	4N41 Mil-Temp only (-55° to +100°C)
67025-101	4N41 Mil-Temp (-55° to +100°C) with 100% screening.
67025-003	4N41 Commercial (0° to 70°C)
67025-004	4N41 Industrial-Temp only (-40° to +85°C)