

TIL305 5 × 7 ALPHANUMERIC DISPLAY

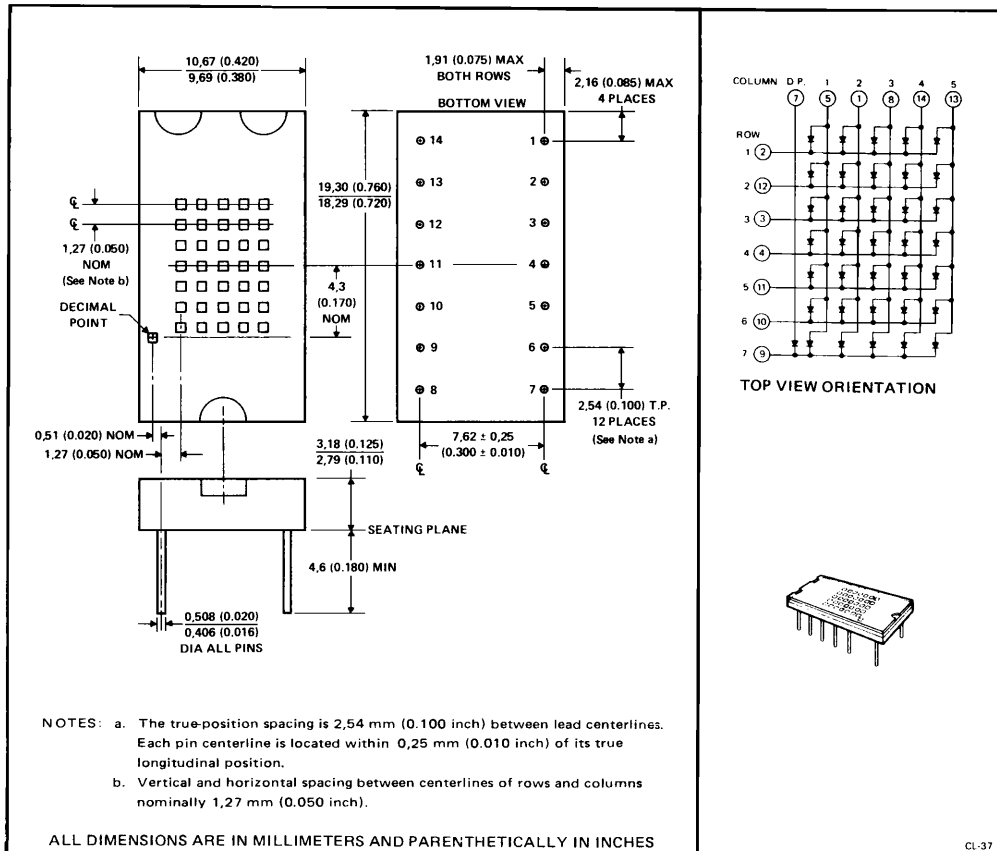
D1033, MAY 1971—REVISED MARCH 1983

SOLID-STATE DISPLAY WITH RED TRANSPARENT PLASTIC ENCAPSULATION

- 7,62-mm (0.300-inch) Character Height
- High Luminous Intensity
- Low Power Requirements
- Wide Viewing Angle
- 5 X 7 Array with X-Y Select and Decimal
- Compatible with USASCII and EBCDIC Codes

mechanical data

This assembly consists of a display chip mounted on a printed circuit board with a red molded plastic body. Multiple displays may be mounted on 11,43-mm (0.450-inch) centers.



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Intelligent LED Displays

TIL305
5 × 7 ALPHANUMERIC DISPLAY

absolute maximum ratings over operating free-air temperature range (unless otherwise noted)

Reverse Voltage at 25°C Free-Air Temperature	3 V
Peak Forward Current, Each Diode	100 mA
Average Forward Current (see Note 1):	
Each Diode	10 mA
Total	200 mA
Operating Free-Air Temperature Range	0° to 70°C
Storage Temperature Range	-25°C to 85°C

operating characteristics of each diode at 25°C free-air temperature (unless otherwise noted)

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNIT
I_V Luminous Intensity (see Note 2)	$I_F = 10 \text{ mA}$	40	110		μcd
λ_P Wavelength at Peak Emission			660		nm
$\Delta\lambda$ Spectral Bandwidth			20		nm
V_F Static Forward Voltage		1.5	1.65	2	V
α_{VF} Average Temperature Coefficient of Static Forward Voltage	$I_F = 10 \text{ mA}$, $T_A = 0^\circ\text{C to } 70^\circ\text{C}$		-1.4		$\text{mV}/^\circ\text{C}$
I_R Static Reverse Current	$V_R = 3 \text{ V}$		10		μA
C Anode-to-Cathode Capacitance	$V_R = 0$, $f = 1 \text{ MHz}$		80		pF

NOTES: 1. This average value applies for any 1 ms period.
2. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (International Commission on Illumination) eye response curve.

TYPICAL CHARACTERISTICS

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RELATIVE LUMINOUS INTENSITY
VS
FREE-AIR TEMPERATURE

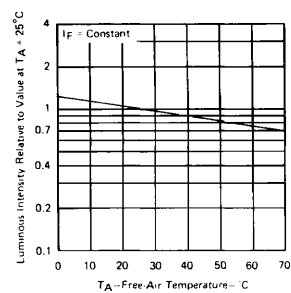


FIGURE 1

RELATIVE LUMINOUS INTENSITY
VS
FORWARD CURRENT

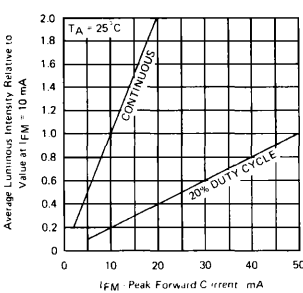


FIGURE 2

FORWARD CONDUCTION
CHARACTERISTICS

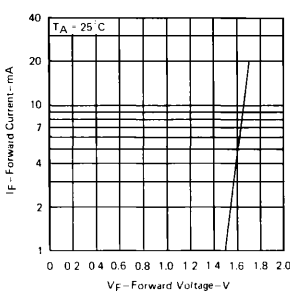


FIGURE 3