

TYPE TIL209B

GALLIUM ARSENIDE PHOSPHIDE VISIBLE-LIGHT SOURCE

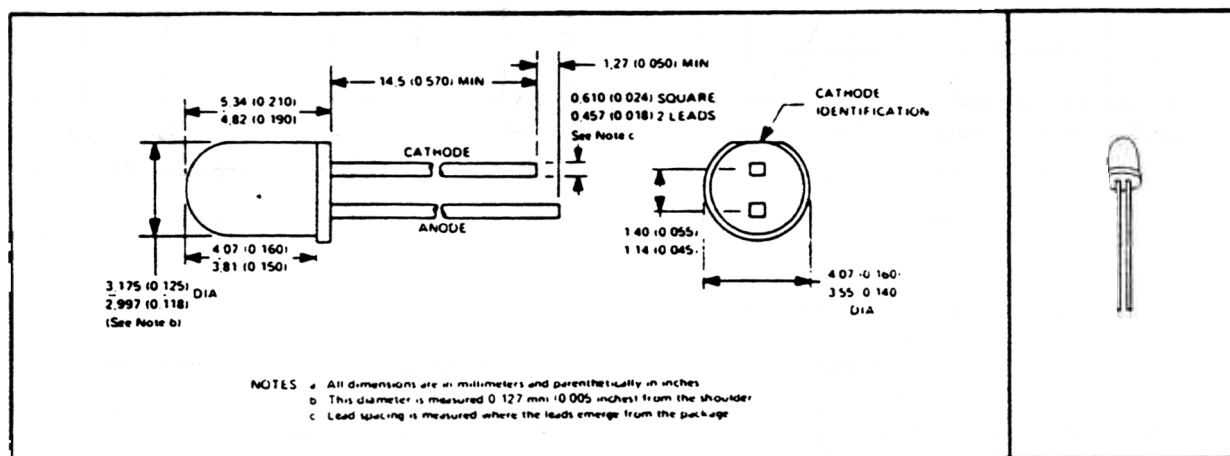
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DESIGNED TO EMIT VISIBLE RED LIGHT WHEN FORWARD BIASED

- Recommended for Application in Visual Indicators, Alpha-Numeric Displays, and Built-In Diagnostics
- High Brightness with Solid-State Reliability
- Compatible with Most TTL and DTL Circuits
- Ideal as Fault or Trouble Indicator
- Filled-Epoxy Lens Provides Diffused Source
- Ideal for Socket, Printed Circuit Board, and 16 mm (1/16") Panel Mounting Techniques

mechanical data

This device has a red molded filled-epoxy body.



absolute maximum ratings

Reverse Voltage at 25°C Free-Air Temperature	3 V
Continuous Forward Current at (or below) 25°C Free-Air Temperature (See Note 1)	40 mA
Storage Temperature Range	-40°C to 80°C
Lead Temperature 1,6 mm (1/16 Inch) from Case for 3 Seconds	260°C

operating characteristics at 25°C free-air temperature

PARAMETER	TEST CONDITIONS	MIN	TYP	MAX	UNIT
I_V Luminous Intensity (See Note 2)	$I_F = 20 \text{ mA}$	TIL209B-1	0.5		mcd
		TIL209B-2	1.3		
λ_p Wavelength at Peak Emission	$I_F = 20 \text{ mA}$	6300	6500	6700	Å
V_F Static Forward Voltage	$I_F = 20 \text{ mA}$		1.6	2	V
I_R Static Reverse Current	$V_R = 3 \text{ V}$		0.1		µA

- NOTES: 1. Derate linearly to 80°C free-air temperature at the rate of 0.73 mA/°C.
2. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (International Commission on Illumination) eye-response curve.

TEXAS INSTRUMENTS

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TYPICAL CHARACTERISTICS

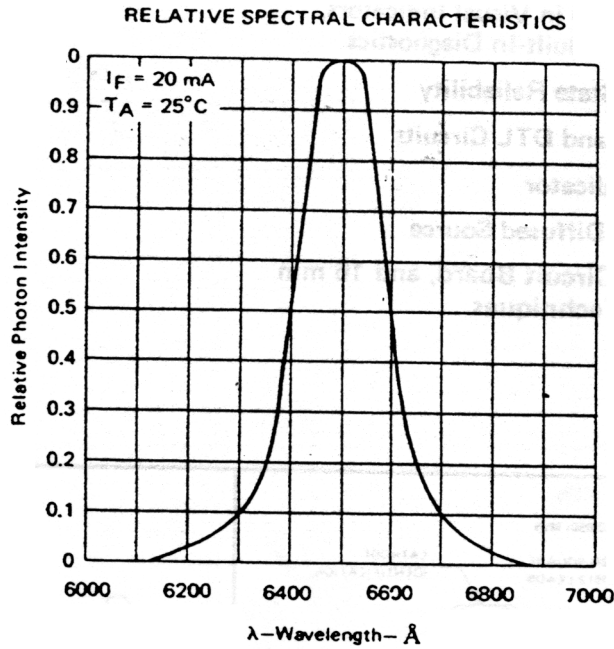


FIGURE 1

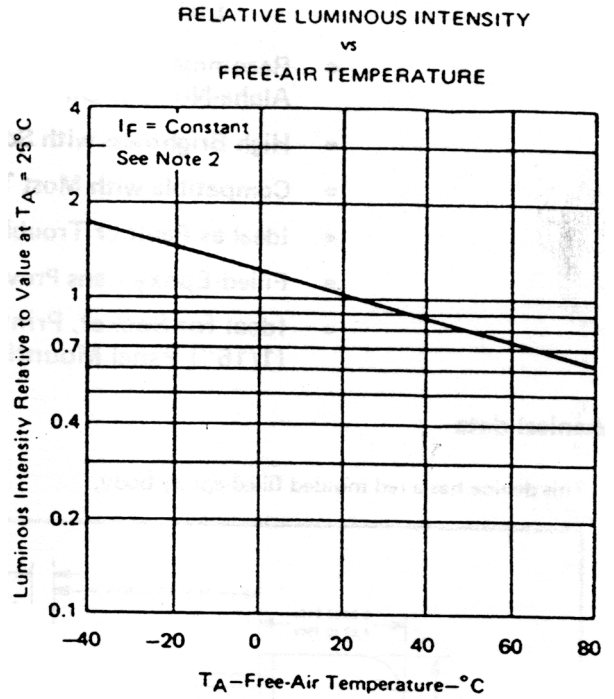


FIGURE 2

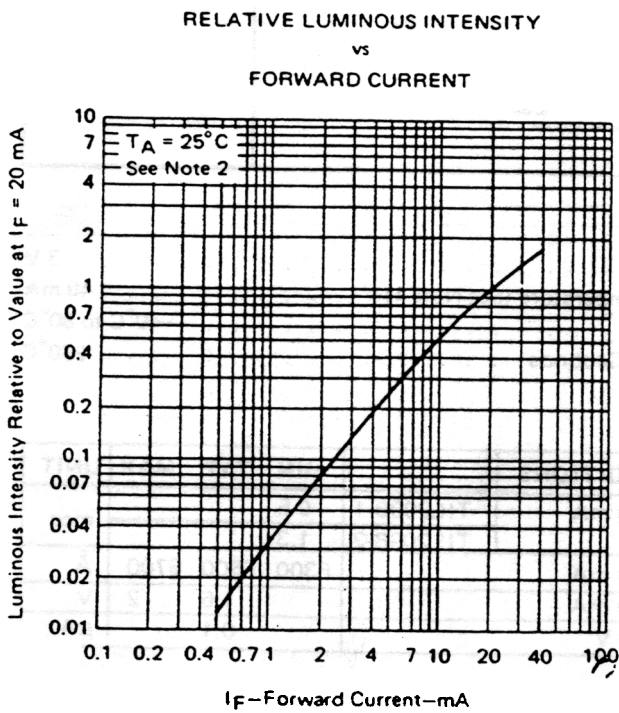


FIGURE 3

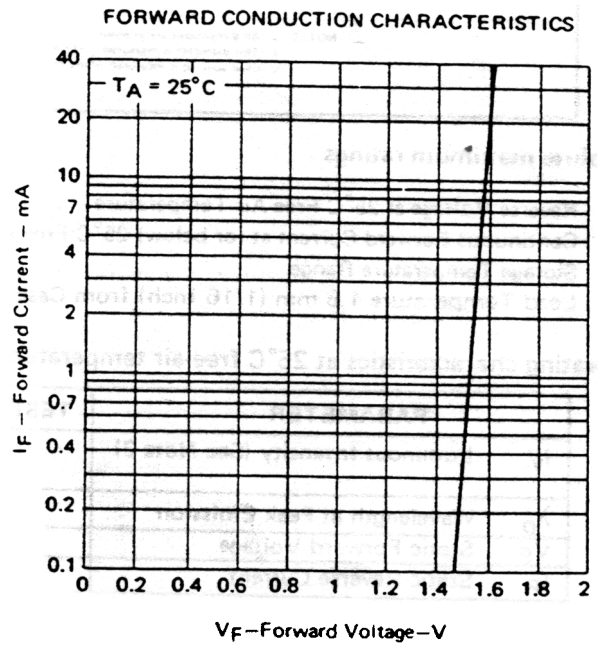


FIGURE 4

NOTE 2: Luminous intensity is measured with a light sensor and filter combination that approximates the CIE (International Commission on Illumination) eye-response curve.