ELECTRONICS, INC.
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NTE3021 and NTE3022
Light Emitting Diode (LED)
5mm (T–1 3/4) Type Package

Description:

The NTE3021 and NTE3022 are discrete LED indicators in a 5mm (T–1 3/4) type package. The NTE3021 yellow source color device is made with GaAlInP/GaAsP and a yellow diffused lens while the NTE3022 red source color device is made with GaP/GaP on a red diffused lens.

Features:

- Low Power Consumption
- IC Compatible
- Long Life Solid State Reliability
- Diffused Lens

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Reverse Voltage, V_R 5V
Power Dissipation, P_D
NTE3021 . . . . . 85mW
NTE3022 . . . . . 75mW
Continuous Forward Current, I_F 30mA
Derate linear from +25°C . . . . . 0.4mA/°C
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width), $I_{F(Peak)}$ 100mA
Operating Temperature Range, T_A
NTE3021 . . . . . –40° to +85°C
NTE3022 . . . . . –25° to +85°C
Storage Temperature Range, T_{stg} . . . . . –40° to +85°C
Lead Temperature (During Soldering, .063 in. (1.6mm) from Body for 3sec), T_L . . . . . +260°C

Electrical/Optical Characteristics: (T_A = +25°C unless otherwise specified)

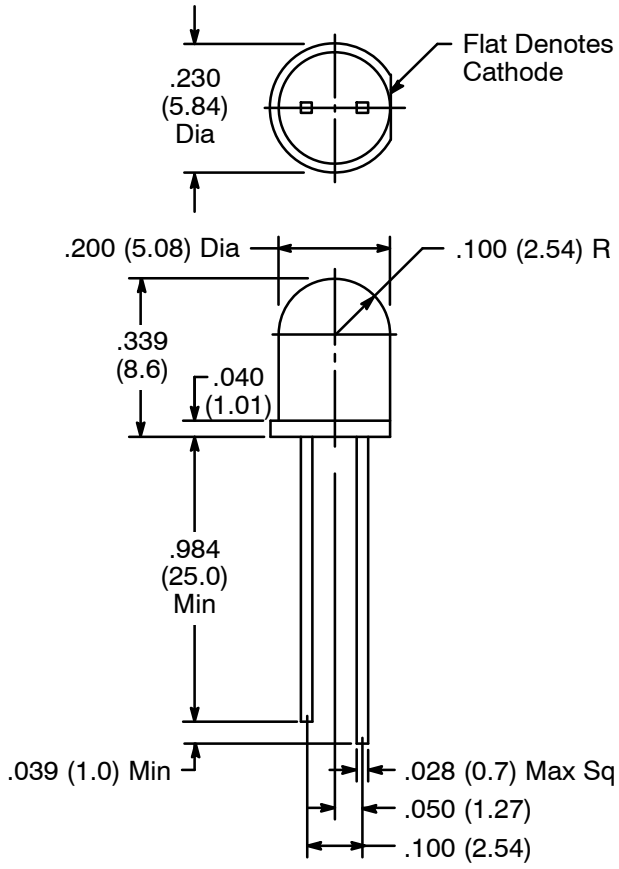
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	I_F = 20mA	1.8	2.0	2.2	V
Reverse Current	I_R	V_R = 5V	–	–	10	μA
Dominant Wavelength NTE3021 NTE3022	λD	I_F = 20mA	 584 635	 586 –	 588 640	 nm nm

Rev. 11–15

RoHS 2002/95/EC

Electrical/Optical Characteristics (Cont'd): (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Spectral Line Half Width NTE3021 **ONLY**	$\Delta\lambda$	I_F = 20mA	–	30	–	nm
Half Intensity Angle NTE3021 NTE3022	$2\Theta^1/_2$	I_F = 20mA	– 30	40 40	– 50	deg deg
Luminous Intensity NTE3021 NTE3022	I_V	I_F = 20mA I_F = 10mA I_F = 20mA	– – 40	50 25 60	– – 80	mcd mcd mcd



Tolerance ±.010 (.254)