

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: ($T_A = +25^\circ\text{C}$ 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 $+25^\circ\text{C}$	0.4mA/ $^\circ\text{C}$
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width), $I_{F(\text{Peak})}$	100mA
Operating Temperature Range, T_A	
NTE3021	-40° to $+85^\circ\text{C}$
NTE3022	-25° to $+85^\circ\text{C}$
Storage Temperature Range, T_{stg}	-40° to $+85^\circ\text{C}$
Lead Temperature (During Soldering, .063 in. (1.6mm) from Body for 3sec), T_L	$+260^\circ\text{C}$

Electrical/Optical Characteristics: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

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

Electrical/Optical Characteristics (Cont'd): ($T_A = +25^{\circ}\text{C}$ unless otherwise specified)

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

