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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: ($T_A = +25^\circ\text{C}$ 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 $+25^\circ\text{C}$	$0.4\text{mA}/^\circ\text{C}$
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	$I_F = 20\text{mA}$				
NTE3021			584	586	588	nm
NTE3022			635	-	640	nm

Rev. 11-15



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 NTE3022	I_V	$I_F = 20\text{mA}$ $I_F = 10\text{mA}$ $I_F = 20\text{mA}$	- - 40	50 25 60	- - 80	mcd mcd mcd

