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NTE30026 thru NTE30028 Light Emitting Diode (LED) PLCC Surface Mount

Features:

- NTE30026: Super Bright Orange (AlInGaP/GaAs)
- NTE30027: Super Bright Blue
- NTE30028: Super Bright White
- 3.5mm x 2.8mm (PLCC) SMT LED, 1.9mm Thickness
- Single Color
- Suitable for All SMT Assembly and Solder Process
- Ideal for Backlighting

Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

DC Forward Current, I_F	
NTE30026	25mA
NTE30027	20mA
NTE30028	30mA
Peak Forward Current (Note 1), $I_{F(\text{peak})}$	
NTE30026	50mA
NTE30027, NTE30028	100mA
Reverse Voltage, V_R	
NTE30026	5V
NTE30027, NTE30028	4V
Power Dissipation, P_D	
NTE30026	100mW
NTE30027, NTE30028	120mW
Electrostatic Discharge (NTE30027, NTE30028 Only), ESD	
150V	
LED Junction Temperature, T_J	
+100°C	
Operating Temperature Range, T_{opr}	
NTE30026, NTE30027	-30° to +85°C
NTE30028	-25° to +85°C
Storage Temperature Range, T_{stg}	
NTE30026, NTE30027	-40° to +85°C
NTE30028	-30° to +85°C
Reflow Soldering (Preheat +150° to +180°C 60sec to 120sec, 10sec max)	
+260°C	

Note 1. 1/10 Duty Cycle, 0.1ms Pulse Width.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Viewing Angle of Half Power	$2\theta_{1/2}$	$I_F = 20\text{mA}$	-	120	-	degrees
Luminous Intensity	I_V	$I_F = 20\text{mA}$, Note 2				
NTE30026	35		60	-	mcd	
NTE30027	25		48	-	mcd	
NTE30028	500	900	-	mcd		

Note 2. Tolerance: 30% measured with EXELTRON 2001

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage NTE30026	V_F	$I_F = 20\text{mA}$	-	2.0	2.5	V
NTE30027			-	3.5	4.2	V
NTE30028			-	3.5	4.0	V
Reverse Current NTE30026	I_R	$V_R = 5\text{V}$	-	-	10	μA
NTE30027, NTE30028		$V_R = 4\text{V}$	-	-	60	μA
Peak Emission Wave Length NTE30026	λ_P	$I_F = 20\text{mA}$	-	620	-	nm
NTE30027			-	468	-	nm
Dominate Wavelength NTE30026	λ_d (HUE)	$I_F = 20\text{mA}$, Note 3	-	615	-	nm
NTE30027			-	470	-	nm
Spectral Line Half Width NTE30026	$\Delta\lambda$	$I_F = 20\text{mA}$	-	20	-	nm
NTE30027			-	35	-	nm
Chromaticity Coordinates (NTE30028 Only)	x	$I_F = 20\text{mA}$	-	0.29	-	
	y		-	0.31	-	

Note 3. The dominate wavelength, λ_d , is derived from the CIE Chromatic Diagram and represents the color of the device.

