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## NTE30026 thru NTE30028 Light Emitting Diode (LED) 3528 SMD LED Type Package

**Features:**

- NTE30026: Super Bright Orange (AlInGaP/GaAs)
- NTE30027: Super Bright Blue
- NTE30028: Super Bright White
- 3.5mm x 2.8mm 3528 SMD 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, NTE30028 .....	30mA
Peak Forward Current (Note 1), $I_{F(\text{peak})}$	
NTE30026 .....	50mA
NTE30027, NTE30028 .....	100mA
Reverse Voltage, $V_R$	
NTE30026, NTE30027 .....	5V
NTE30028 .....	4V
Power Dissipation, $P_D$	
NTE30026, NTE30027 .....	100mW
NTE30028 .....	120mW
Electrostatic Discharge, ESD	
NTE30027 .....	2000 (HBM)V
NTE30028 .....	150V
LED Junction Temperature, $T_J$ .....	+100°C
Operating Temperature Range, $T_{opr}$	
NTE30026 .....	-30° to +85°C
NTE30027 .....	-40° to +100°C
NTE30028 .....	-25° to +85°C
Storage Temperature Range, $T_{stg}$	
NTE30026 .....	-40° to +85°C
NTE30027 .....	-40° to +100°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.

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**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 NTE30026	$I_V$	$I_F = 20\text{mA}$ , Note 2	35	60	-	mcd
NTE30027			500	-	800	mcd
NTE30028			500	900	-	mcd
Forward Voltage NTE30026	$V_F$	$I_F = 20\text{mA}$	-	2.0	2.5	V
NTE30027			3.0	-	3.4	V
NTE30028			-	3.5	4.0	V
Reverse Current NTE30026, NTE30027	$I_R$	$V_R = 5\text{V}$	-	-	10	$\mu\text{A}$
NTE30028		$V_R = 4\text{V}$	-	-	60	$\mu\text{A}$
Peak Emission Wave Length NTE30026	$\lambda_P$	$I_F = 20\text{mA}$	-	620	-	nm
NTE30027			460	465	470	nm
Dominate Wavelength (NTE30026 <b>Only</b> )	$\lambda_d$ (HUE)	$I_F = 20\text{mA}$ , Note 3	-	615	-	nm
Spectral Line Half Width NTE30026	$\Delta\lambda$	$I_F = 20\text{mA}$	-	20	-	nm
NTE30027			-	-	10	nm
Chromaticity Coordinates (NTE30028 <b>Only</b> )	x	$I_F = 20\text{mA}$	-	0.29	-	
	y		-	0.31	-	

Note 2. Luminous Intensity Tolerance:  $\pm 30\%$  (NTE30026 & NTE30028),  $\pm 10\%$  (NTE30027)

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

