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## NTE30091 Light Emitting Diode (LED) High-Efficiency Red + Green SOT-23 Surface Mount

**Features:**

- 3.0mm x 1.6mm SOT-23 SMT LED, 1.0mm Thickness
- High-Efficiency Red + Green

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

DC Forward Current, $I_F$		
High-Efficiency Red	.....	30mA
Green	.....	25mA
Peak Forward Current (Note 1), $I_{F(\text{peak})}$	.....	50mA
Reverse Voltage, $V_R$	.....	5V
Power Dissipation, $P_D$		
High-Efficiency Red	.....	90mW
Green	.....	84mW
Operating Temperature Range, $T_{\text{opr}}$	.....	$-30^\circ$ to $+85^\circ\text{C}$
Storage Temperature Range, $T_{\text{stg}}$	.....	$-40^\circ$ to $+85^\circ\text{C}$
Reflow Soldering (Preheat $+150^\circ$ to $+180^\circ\text{C}$ 60sec to 120sec, 10sec max)	.....	$+260^\circ\text{C}$

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	$2\theta_{1/2}$	$I_F = 20\text{mA}$	-	140	-	degrees
Luminous Intensity	$I_V$	$I_F = 20\text{mA}$ , Note 2	2.0	4.0	-	mcd
High-Efficiency Red						
Green			2.0	4.0	-	mcd
Forward Voltage	$V_F$	$I_F = 20\text{mA}$	-	2.05	2.60	V
High-Efficiency Red						
Green			-	2.15	2.80	V
Peak Emission Wave Length	$\lambda_p$	$I_F = 20\text{mA}$	-	625	-	nm
High-Efficiency Red						
Green			-	570	-	nm
Dominate Wavelength	$\lambda_d$ (HUE)	$I_F = 20\text{mA}$ , Note 3	-	618	-	nm
High-Efficiency Red						
Green			-	567	-	nm

Note 2. Tolerance: 30% measured with EXELTRON 2001

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

