



ELECTRONICS, INC.
 44 FARRAND STREET
 BLOOMFIELD, NJ 07003
 (973) 748-5089
<http://www.nteinc.com>

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
- Common Anode Pin Configuration

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_{opr}		-30° to +85°C
Storage Temperature Range, T_{stg}		-40° 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	$2\theta_{1/2}$	$I_F = 20\text{mA}$	-	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	λ_P	$I_F = 20\text{mA}$	-	625	-	nm
High-Efficiency Red						
Green			-	570	-	nm
Dominant Wavelength	λ_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 dominant wavelength, λ_d , is derived from the CIE Chromatic Diagram and represents the color of the device.



Rev. 3-18

