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## NTE30090 Light Emitting Diode (LED) High-Efficiency Red + Yellow SOT-23 Surface Mount

**Features:**

- 3.0mm x 1.6mm SOT-23 SMT LED, 1.0mm Thickness
- High-Efficiency Red + Yellow
- 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
Yellow	25mA
Peak Forward Current (Note 1), $I_{F(\text{peak})}$	50mA
Reverse Voltage, $V_R$	5V
Power Dissipation, $P_D$	90mW
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						
Yellow			2.0	4.0	–	mcd
Forward Voltage	$V_F$	$I_F = 20\text{mA}$	–	2.05	2.60	V
High-Efficiency Red						
Yellow			–	2.10	2.80	V
Peak Emission Wave Length	$\lambda_P$	$I_F = 20\text{mA}$	–	625	–	nm
High-Efficiency Red						
Yellow			–	589	–	nm
Dominant Wavelength	$\lambda_d$ (HUE)	$I_F = 20\text{mA}$ , Note 3	–	618	–	nm
High-Efficiency Red						
Yellow			–	585	–	nm

Note 2. Tolerance: 30% measured with EXELTRON 2001

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

