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NTE30088 & NTE30089 Light Emitting Diode (LED) SOT-23 Surface Mount

Features:

- Available in 2 Different Colors:
NTE30088 (Super Red, GaAlAs/GaAs)
NTE30089 (Yellow, GaAsP/GaP)
- 3.0mm x 1.6mm SOT-23 SMT LED, 1.0mm Thickness
- Single Color

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

DC Forward Current, I_F	
NTE30088	30mA
NTE30089	25mA
Peak Forward Current (Note 1), $I_{F(\text{peak})}$	50mA
Reverse Voltage, V_R	5V
Power Dissipation, P_D	
NTE30088	110mW
NTE30089	90mW
Operating Temperature Range, T_{opr}	-30° to $+85^\circ\text{C}$
Storage Temperature Range, T_{stg}	-40° to $+100^\circ\text{C}$
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)

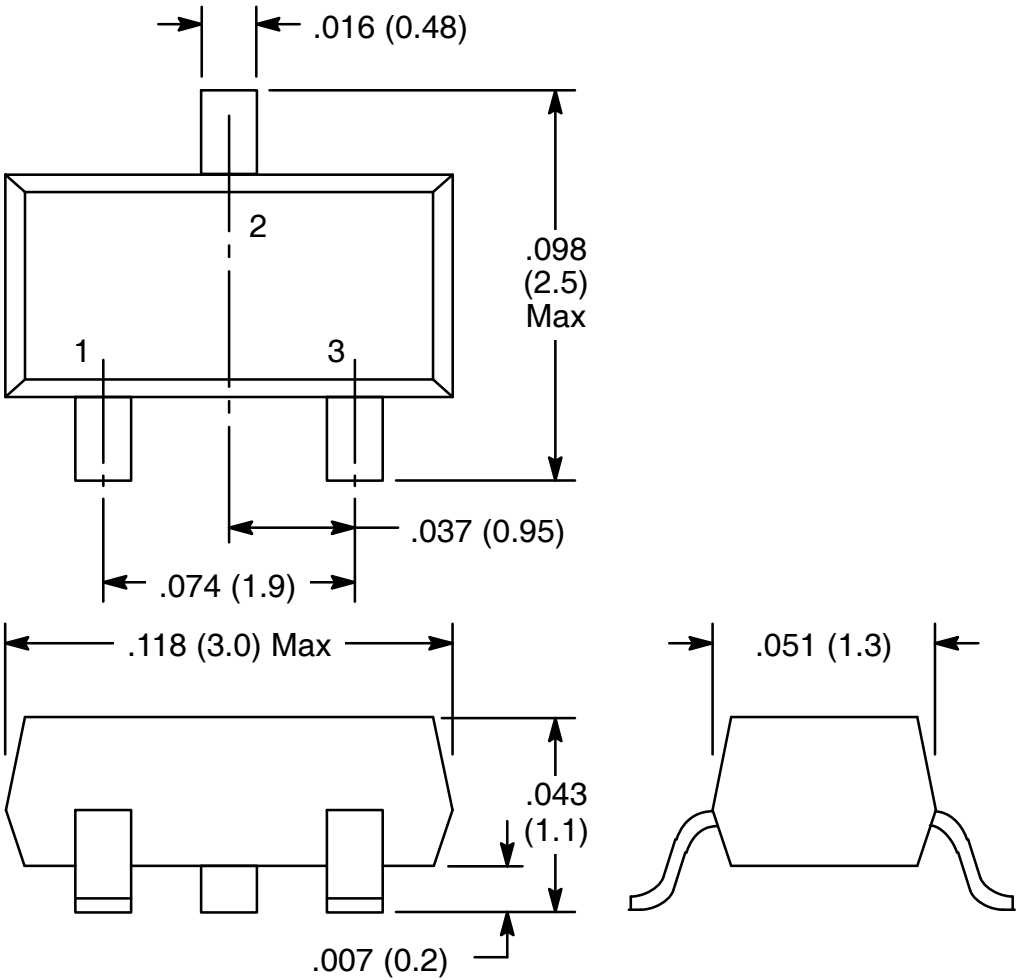
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Viewing Angle of Half Power	$2\theta_{1/2}$	$I_F = 20\text{mA}$	–	140	–	degrees
Luminous Intensity	I_V	$I_F = 20\text{mA}$, Note 2	7	12	–	mcd
NTE30088			2	4	–	mcd
Forward Voltage	V_F	$I_F = 20\text{mA}$	–	1.80	2.40	V
NTE30088			–	2.10	2.80	V
Reverse Current	I_R	$V_R = 5\text{V}$	–	–	10	μA
Peak Emission Wave Length	λ_P	$I_F = 20\text{mA}$	–	660	–	nm
NTE30088			–	589	–	nm
NTE30089						

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
Dominate Wavelength NTE30088	λ_d (HUE)	$I_F = 20\text{mA}$, Note 3	–	643	–	nm
NTE30089			–	585	–	nm
Spectral Line Half Width NTE30088	$\Delta\lambda$	$I_F = 20\text{mA}$	–	30	–	nm
NTE30089			–	35	–	nm

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



	1	2	3
NTE30088	NC	A	K
NTE30089	NC	K	A