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RoHS 2002/95/EC

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

Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

DC Forward Current, I_F
- High–Efficiency Red 30mA
- Yellow 25mA

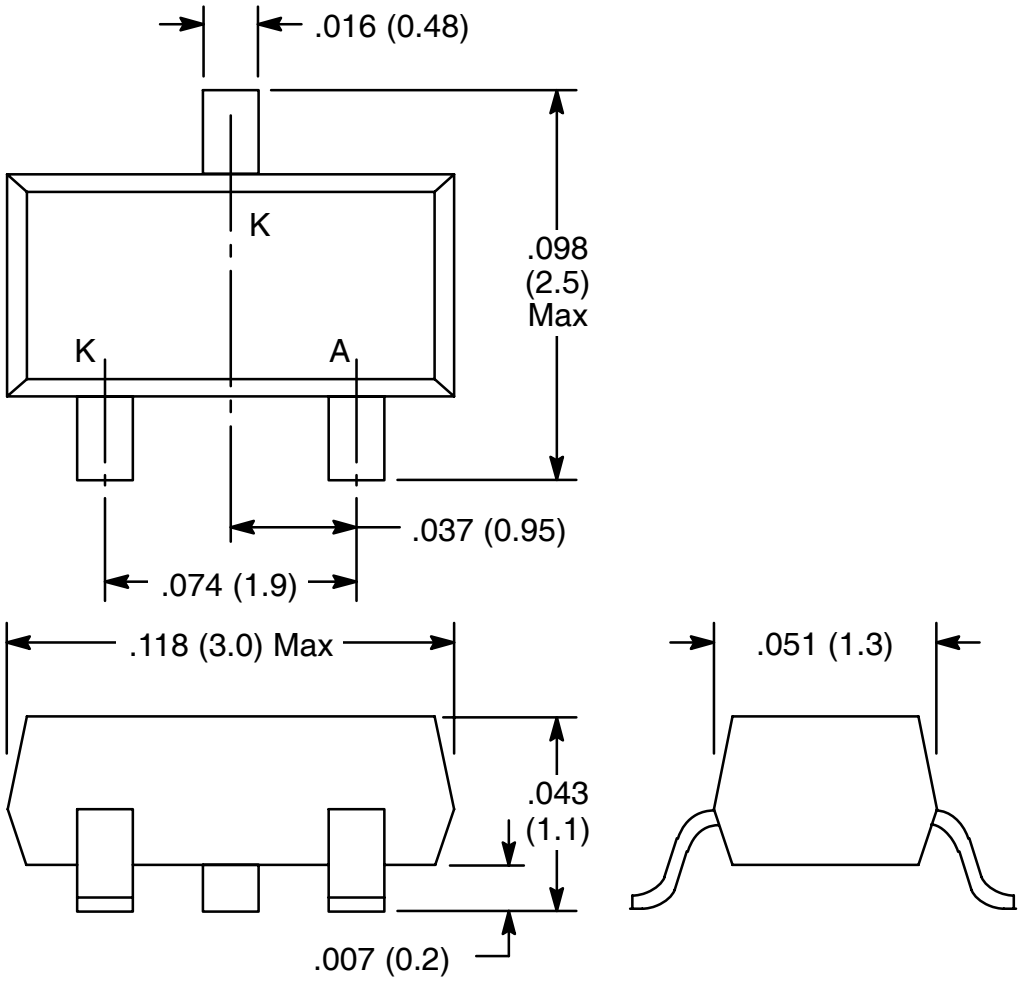
Peak Forward Current (Note 1), $I_{F(peak)}$ 50mA
Reverse Voltage, V_R 5V
Power Dissipation, P_D 90mW
Operating Temperature Range, T_{opr} . . . . . –30° to +85°C
Storage Temperature Range, T_{stg} . . . . . –40° to +85°C
Reflow Soldering (Preheat +150° to +180°C 60sec to 120sec, 10sec max) . . . . . +260°C

Note 1. 1/10 Duty Cycle, 0.1ms Pulse Width.

Electrical/Optical Characteristics: (T_A = +25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Viewing Angle of Half Power	$2\Theta 1/2$	I_F = 20mA	–	140	–	degrees
Luminous Intensity High–Efficiency Red	I_V	I_F = 20mA, Note 2	2.0	4.0	–	mcd
Yellow			2.0	4.0	–	mcd
Forward Voltage High–Efficiency Red	V_F	I_F = 20mA	–	2.05	2.60	V
Yellow			–	2.10	2.80	V
Peak Emission Wave Length High–Efficiency Red	λ_P	I_F = 20mA	–	625	–	nm
Yellow			–	589	–	nm
Dominate Wavelength High–Efficiency Red	$\lambda_{d\ (HUE)}$	I_F = 20mA, Note 3	–	618	–	nm
Yellow			–	585	–	nm

Note 2. Tolerance: 30% measured with EXELTRON 2001
Note 3. The dominate wavelength, λ_d, is derived from the CIE Chromatic Diagram and represents the color of the device.


.016 (0.48)
K
.098
(2.5)
Max
K
A
.037 (0.95)
.074 (1.9)
.118 (3.0) Max
.051 (1.3)
.043
(1.1)
.007 (0.2)