ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089

NTE3000
Light Emitting Diode
Miniature, Clear Red

Description:

The NTE3000 is a red diffused Gallium Arsenide phosphide diode in a two lead epoxy package with a clear lens. The NTE3000 is intended for high volume indicator light applications. Major usage is in applications such as diagnostic lights on printed circuit boards and panel lights. It can also be used to displace subminiature lamps as small as T3/4 size.

Absolute Maximum Ratings:

Power Dissipation (T_A = +25°C) 80mW
Derate linearly from 25°C . . . . . 1.6mW/°C
Forward Current
Continuous 40mA
Peak (1 μsec pulse width, 0.3% duty cycle) 1.0A
Reverse Voltage 5.0V
Operating Temperature Range . . . . . –55° to +100°C
Storage Temperature Range . . . . . –55° to +100°C
Lead Temperature (During Soldering, 5sec max, Note 1) . . . . . +230°C

Note 1. The leads of the device were immersed in molten solder at +230°C to a point 1/16 (1.6mm) inch from the body of the device per MIL S–750, with a dwell time of 5 seconds.

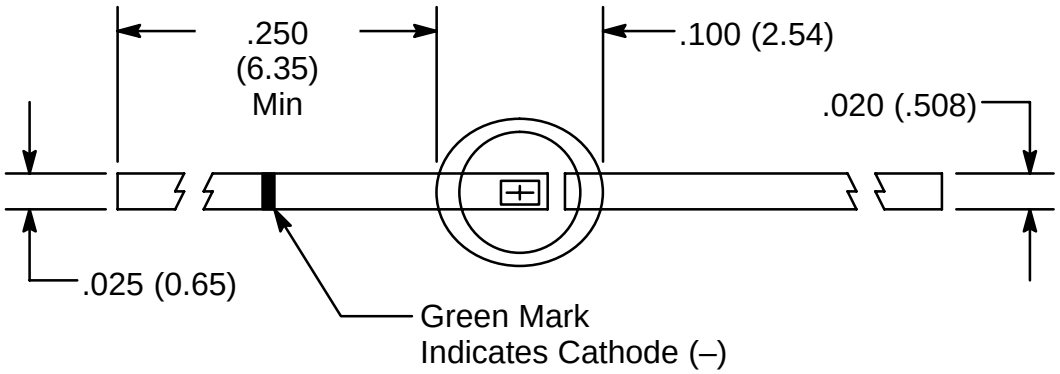
Typical Thermal Characteristics:

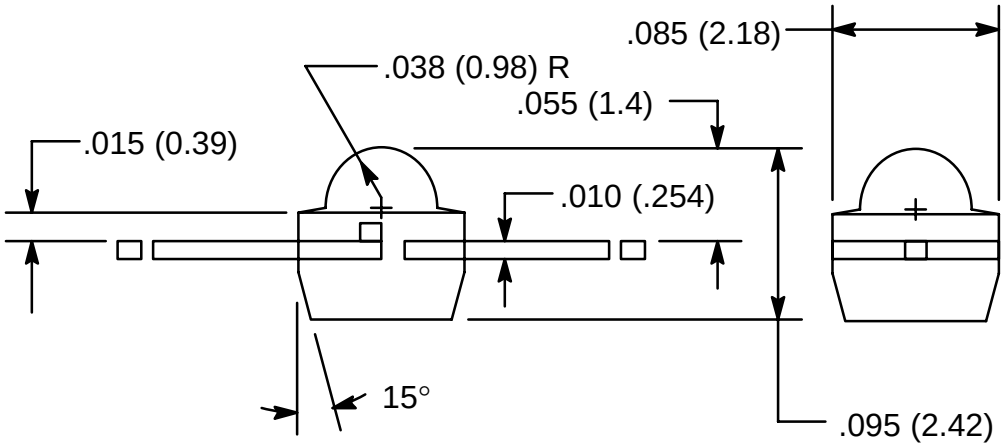
Wavelength Temperature Coefficient (Case Temperature) . . . . . 0.3nm/°C
Forward Voltage Temperature Coefficient . . . . . –2.0mV/°C

Electro–Optical Characteristics: (T_A = +25°C unless otherwise specified)

Parameter	Test Conditions	Min	Typ	Max	Unit
Luminous Intensity	I_F = 20mA, Note 2	0.5	1.4	–	mcd
Peak Emission Wavelength	I_F = 20mA	–	660	–	nm
Spectral Line Halfwidth	I_F = 20mA	–	20	–	nm
Forward Voltage	I_F = 20mA	–	1.65	2.0	V
Capacitance	V = 0	–	80	–	pF
Rise & Fall Time	50Ω System I_F = 20mA	–	50	–	ns
Reverse Current	V_R = 3.0V	–	5.0	–	nA
Reverse Breakdown Voltage	I_R = 100μA	5	15	–	V
View Angle	Between 50% points	–	80	–	degrees

Note 2. As measured with a Photo Research Corp. “SPECTRA” Microcandela Meter (Model IV–D).


.250
(6.35)
Min
.100 (2.54)
.020 (.508)
.025 (0.65)
Green Mark
Indicates Cathode (–)


.085 (2.18)
.038 (0.98) R
.055 (1.4)
.015 (0.39)
.010 (.254)
15°
.095 (2.42)