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## NTE3074 & NTE3075 LED Display 2-Digit .560 Inch RHDP

**Features:**

- High Performance GaAsP
- Large, Easy to Read Digits
- Common Anode (NTE3074) or Common Cathode (NTE3075) Models
- Fast Switching - Excellent for Multiplexing
- Low Power Consumption
- Bold Solid Segments that are Highly Legible
- Solid State Reliability - Long Operation Life
- Rugged Plastic Construction
- Directly Compatible with Integrated Circuits
- High Brightness with High Contrast
- Wide Angle Viewing: 150°
- Low Forward voltage
- Two-Digit Package Simplifies Alignment & Assembly

**Applications:**

- Digital Readout Displays
- Instrument Panels
- Point-of-Safe Equipment
- Digital Clocks
- TV and Radios

**Absolute Maximum Ratings:**

Power Dissipation ( $T_A = +25^\circ\text{C}$ ), $P_D$	
NTE3074 .....	1280mW
NTE3075 .....	960mW
Derate linearly from 50°C	
NTE3074 .....	0.4mA/°C
NTE3075 .....	-13.7mW/°C
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	
NTE3074 .....	130mA
Operating ( $T_{opr}$ ) & Storage ( $T_{stg}$ ) Temperature Range	
NTE3074 .....	-40° to +80°C
NTE3075 .....	-40° to +85°C
Continuous Forward Current(NTE3074), $I_F$	
Total .....	640mA
Per segment .....	40mA
Decimal point .....	40mA
Continuous Forward Current, $I_F$	
Total .....	480mA
Per segment .....	30mA
Decimal point .....	30mA

Reverse Voltage,  $V_R$ , Per segment and Decimal point

NTE3074 ..... 5.0V

NTE3075 ..... 6.0V

Lead Temperature (During Soldering for 5sec, Note 1 and Note 2),  $T_L$  ..... +260°C

Thermal Resistance, Junction to Ambient,  $R_{thJA}$  ..... 160°C/W

Wavelength Temperature Coefficient (Case Temperature) ..... 3.0λ/°C

Forward Voltage Temperature Coefficient ..... -2.0mV/°C

Note 1. For flux removal, use Freon TF, Freon TE, Isoproponal, or water up to their boiling points.

Note 2. Intensity adjusted for smaller areas of the decimal points.

**Electrical-Optical Characteristics for NTE3075:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Parameter	Test Conditions	Min	Typ	Max	Unit
Luminous Intensity Digit Average	$I_F = 10\text{mA}$ , Note 5	125	-	-	μcd
Decimal Point	$I_F = 10\text{mA}$ , Note 4	55	-	-	μcd
Peak Emission Wavelength		-	650	-	nm
Spectral Line Half Width		-	20	-	nm
Forward Voltage Segment	$I_F = 20\text{mA}$	-	-	20	V
Decimal Point	$I_F = 20\text{mA}$	-	-	20	V
Dynamic Resistance Segment	$I_{PK} = 100\text{mA}$	-	2	-	Ω
Decimal Point	$I_{PK} = 100\text{mA}$	-	2	-	Ω
Capacitance Segment	$V = 0$	-	35	-	pF
Decimal Point	$V = 0$	-	35	-	pF
Reverse Current Segment	$V_R = 5\text{V}$	-	-	100	μA
Decimal Point	$V_R = 5\text{V}$	-	-	100	μA

Note 4. Intensity adjusted for smaller areas of the decimal points.

Note 5. The digit average Luminous Intensity is obtained by summing the Luminous Intensity of each segment and dividing the total number of segments as measured with a Photo Research Corp. "SPECTRA" Microcandela Meter (Model IV-D). Intensity will not vary more than ±33.3% between all segments within a digit.

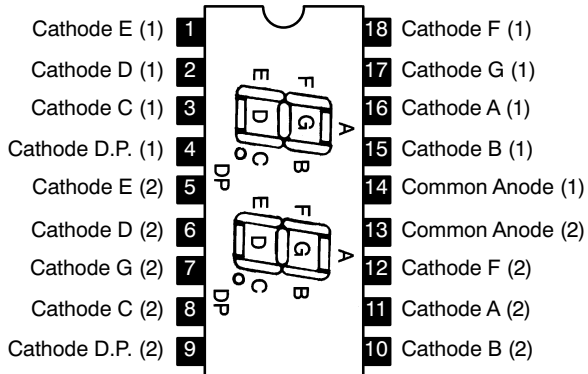
Note 6. Leads immersed to 1/16" from the body of the device. Maximum unit surface temperature is +140°C.

**Electrical-Optical Characteristics for NTE3074:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Parameter	Test Conditions	Min	Typ	Max	Unit
Luminous Intensity	$I_F = 20\text{mA}$ , Note 7	7	12	15	mcd
Peak Emission Wavelength	$I_F = 20\text{mA}$	655	660	665	nm
Spectral Line Half Width	$I_F = 20\text{mA}$	19	24	29	nm
Forward Voltage	$I_F = 20\text{mA}$	1.6	1.85	2.4	V
Reverse Current	$V_R = 5\text{V}$	-	-	100	μA

Note 7. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.

**NTE3074**



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