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## NTE3068 thru NTE3071 0.4" Single Digit Numeric Display Seven Segment, RHDP

**Description:**

The NTE3068 through NTE3071 are 0.4 inch (10.16mm) height single digit displays. The NTE3068 device utilizes LED chips which are made from GaP. The NTE3069 device utilizes LED chips which are made from AlGaAs. The NTE3070 device utilizes LED chips which are made from GaAsP. The NTE3071 device utilizes LED chips which are made from AlGaInP.

**Features:**

- Choice of Two Bright Colors and Polarity:

<b>Color</b>	<b>Common Anode (+)</b>	<b>Common Cathode (-)</b>
Super Red	NTE3068	NTE3069
Orange/Amber	NTE3070	NTE3071

- 0.4 Inch (10.16mm) Digit Height
- Continuous Uniform Segments
- Low Power Requirement
- Excellent Characters Appearance
- Categorized for Luminous Intensity
- IC Compatible
- Easy Mounting on PC Board or Socket

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

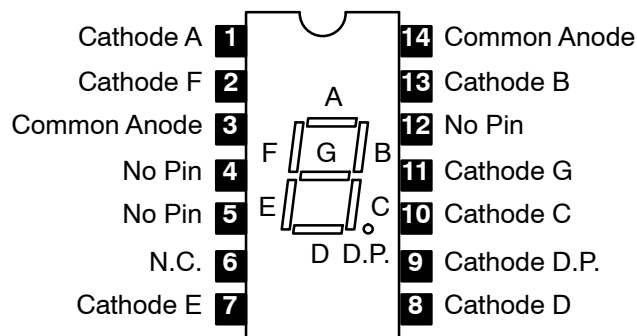
Power Dissipation (Per Segment), $P_T$ .....	100mW
Peak Forward Current (Per Segment, 1/10 Duty Cycle, 0.1ms Pulse Width), $I_{fpeak}$	
NTE3068, NTE3069, NTE3070 .....	100mA
NTE3071 .....	150mA
Continuous Forward Current (Per Segment), $I_F$	
NTE3068, NTE3069 .....	40mA
NTE3070 .....	25mA
NTE3071 .....	30mA
Derate Linearly	
NTE3068, NTE3069, NTE3071 from $50^\circ\text{C}$ (Per Segment) .....	$0.40\text{mA}/^\circ\text{C}$
NTE3070, from $25^\circ\text{C}$ (Per Segment) .....	$0.30\text{mA}/^\circ\text{C}$
Reverse Voltage (Per Segment), $V_R$ .....	5V
Operating Temperature Range, $T_{opr}$	
NTE3068, NTE3070 .....	$-25^\circ$ to $+85^\circ\text{C}$
NTE3069 .....	$-40^\circ$ to $+80^\circ\text{C}$
NTE3071 .....	$-40^\circ$ to $+85^\circ\text{C}$
Storage Temperature Range, $T_{stg}$	
NTE3068, NTE3070 .....	$-25^\circ$ to $+85^\circ\text{C}$
NTE3069 .....	$-40^\circ$ to $+80^\circ\text{C}$
NTE3071 .....	$-40^\circ$ to $+85^\circ\text{C}$
Lead Temperature (During Solder, 1/16" Below Seating Plane, 3sec max), $T_L$ .....	$+260^\circ\text{C}$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Average Luminous Intensity NTE3068, NTE3069	$I_V$	$I_F = 20\text{mA}$	-	10.5	14	md
NTE3071		$I_F = 10\text{mA}$	24	-	60	
NTE3070			850	2200	-	$\mu\text{cd}$
Peak Emission Wavelength NTE3068, NTE3069	$\lambda_P$	$I_F = 20\text{mA}$	655	660	665	nm
NTE3070			-	630	-	nm
NTE3071		$I_F = 10\text{mA}$	-	610	-	nm
Spectral Line Half-Width NTE3068, NTE3069	$\Delta\lambda$	$I_F = 20\text{mA}$	19	24	29	nm
NTE3070			-	40	-	nm
NTE3071		$I_F = 10\text{mA}$	-	20	-	nm
Forward Voltage, Any Segment or D.P. NTE3068, NTE3069	$V_F$	$I_F = 20\text{mA}$	1.6	1.85	2.4	V
NTE3070			-	2.1	2.8	V
NTE3071		$I_F = 10\text{mA}$	-	2.0	2.5	V
Reverse Current, Any Segment or D.P.	$I_R$	$V_R = 5\text{V}$	-	-	100	$\mu\text{A}$
Luminous Intensity Matching Ratio NTE3068, NTE3069, NTE3070	$I_{V-m}$	$I_F = 20\text{mA}$	-	-	2:1	
NTE3071			-	-	1.5:1	

**Pin Connection Diagram**

**NTE3068, NTE3070**



**NTE3069, NTE3071**

