



**ELECTRONICS, INC.**  
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## NTE3052 thru NTE3055 0.3" Single Digit Numeric Display, Seven Segment, Common Anode

**Description:**

The NTE3052 through NTE3055 are 0.3 inch (7.62mm) height single digit, seven segment, common anode displays. The NTE3052 utilizes LED chips which are made from GaAsP on a GaAs substrate. The NTE3054 utilizes LED chips which are made from GaP on a transparent GaP substrate. The NTE3053 and NTE3055 utilize LED chips which are made from GaAsP on a transparent GaP substrate.

**Features:**

- 0.3 Inch (7.62mm) Digit Height
- Choice of Four Bright Colors:
  - Red – NTE3052
  - Orange – NTE3053
  - Green – NTE3054
  - Yellow – NTE3055
- Low Power Requirement
- Excellent Characters Appearance
- Categorized for Luminous Intensity
- IC Compatible
- Easy Mounting on PC Board or Sockets

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

Power Dissipation (Per Segment), $P_T$	
NTE3052	55mW
NTE3053, NTE3054	75mW
NTE3055	60mW
Peak Forward Current (Per Segment, 1/10 Duty Cycle, 0.1ms Pulse Width), $I_{Fpeak}$	
NTE3052	160mA
NTE3053, NTE3054	100mA
NTE3055	80mA
Continuous Forward Current (Per Segment), $I_F$	
NTE3052, NTE3053, NTE3054	25mA
NTE3055	20mA
Derate Linearly from 25°C (Per Segment)	
NTE3052, NTE3053, NTE3054	0.30mA/°C
NTE3055	0.24mA/°C
Reverse Voltage (Per Segment), $V_R$	5V
Operating Temperature Range, $T_{opr}$	-25° to +85°C
Storage Temperature Range, $T_{stg}$	-25° to +85°C
Lead Temperature (During Solder, 1/16" Below Seating Plane, 3sec max), $T_L$	+260°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Average Luminous Intensity NTE3052	$I_V$	$I_F = 10\text{mA}$	200	500	–	$\mu\text{cd}$
NTE3053, NTE3054, NTE3055			800	2000	–	$\mu\text{cd}$
Peak Emission Wavelength NTE3052	$\lambda_P$	$I_F = 20\text{mA}$	–	655	–	nm
NTE3053			–	630	–	nm
NTE3054			–	565	–	nm
NTE3055			–	585	–	nm
Spectral Line Half-Width NTE3052	$\Delta\lambda$	$I_F = 20\text{mA}$	–	24	–	nm
NTE3053			–	40	–	nm
NTE3054			–	30	–	nm
NTE3055			–	35	–	nm
Forward Voltage, Any Segment or D.P. NTE3052	$V_F$	$I_F = 20\text{mA}$	–	1.7	2.0	V
NTE3053, NTE3054, NTE3055			–	2.1	2.8	V
Reverse Current, Any Segment or D.P.	$I_R$	$V_R = 5\text{V}$	–	–	100	$\mu\text{A}$
Luminous Intensity Matching Ratio	$I_{V-m}$	$I_F = 20\text{mA}$	–	–	2:1	

**Pin Connection Diagram**



