

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), $I_{F\text{peak}}$	
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/ $^{\circ}\text{C}$
NTE3055	0.24mA/ $^{\circ}\text{C}$
Reverse Voltage (Per Segment), V_R	5V
Operating Temperature Range, T_{opr}	-25° to $+85^{\circ}\text{C}$
Storage Temperature Range, T_{stg}	-25° 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 NTE3052	I_V	$I_F = 10\text{mA}$	200	500	—	μcd
NTE3053, NTE3054, NTE3055			800	2000	—	μcd
Peak Emission Wavelength NTE3052	λ_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	μA
Luminous Intensity Matching Ratio	I_{V-m}	$I_F = 20\text{mA}$	—	—	2:1	

Pin Connection Diagram



