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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 utilizes LED chips made from AlGaP while the NTE3055 utilizes LED chips which are made from AlGaInP.

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

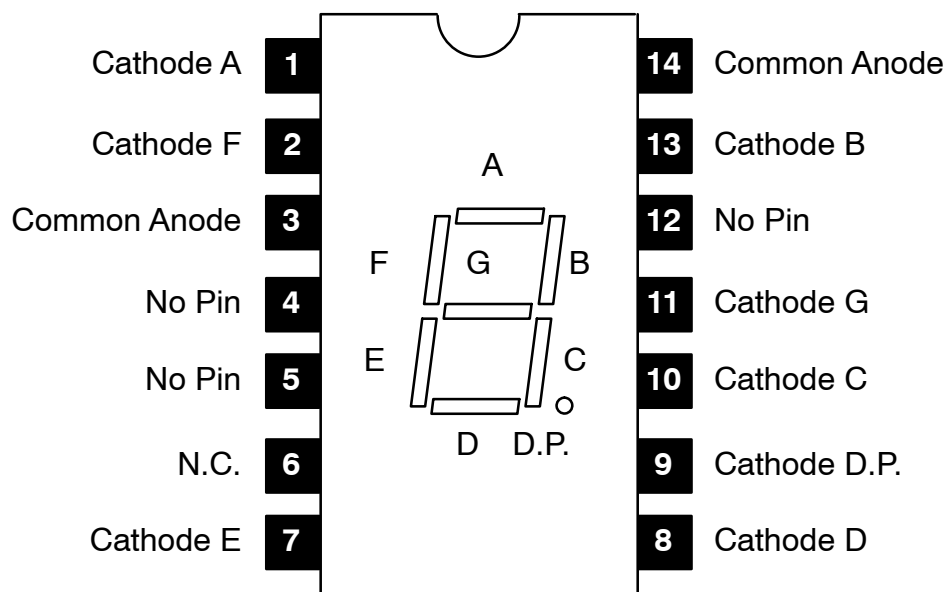
Absolute Maximum Ratings: ($T_A = +25^\circ\text{C}$ unless otherwise specified)

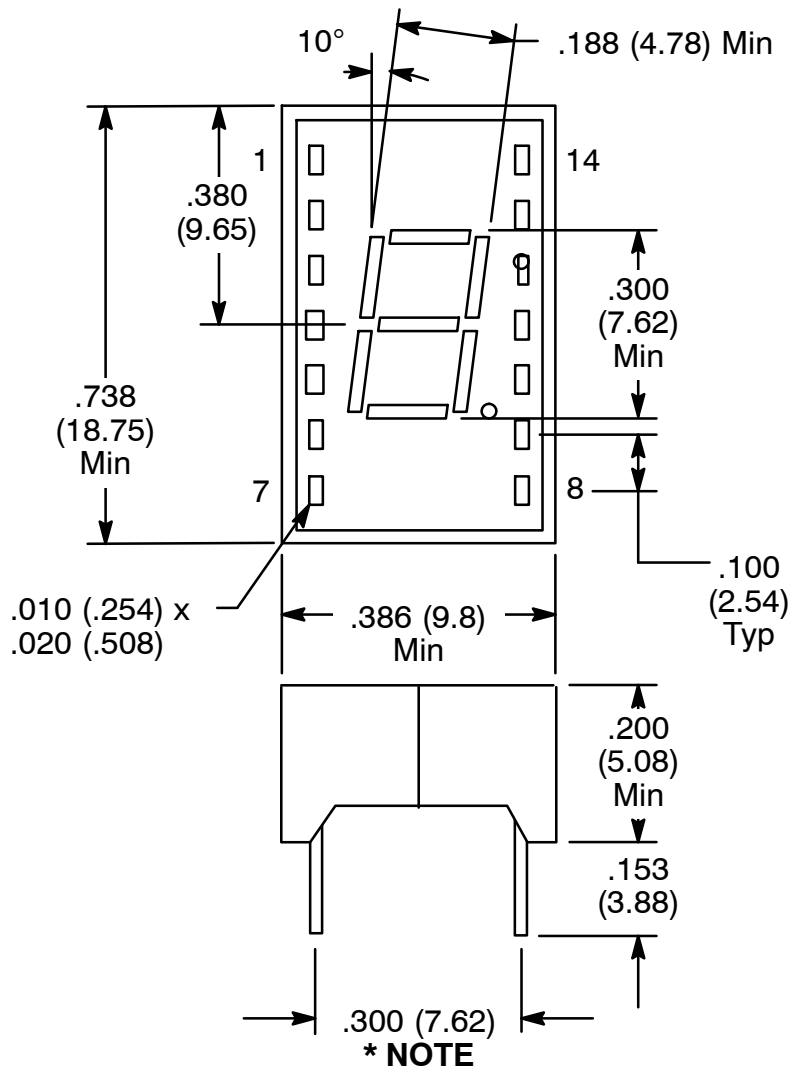
Power Dissipation (Per Segment), P_T	
NTE3052, NTE3055	100mW
NTE3053	80mW
NTE3054	75mW
Peak Forward Current (Per Segment, 1/10 Duty Cycle, 0.1ms Pulse Width), I_{Fpeak}	
NTE3052, NTE3053, NTE3054	100mA
NTE3055	150mA
Continuous Forward Current (Per Segment), I_F	
NTE3052, NTE3053	40mA
NTE3054	25mA
NTE3055	30mA
Derate Linearly from 25°C (Per Segment)	
NTE3052, NTE3053	0.40mA/ $^\circ\text{C}$
NTE3054	0.30mA/ $^\circ\text{C}$
Reverse Voltage (Per Segment), V_R	5V
Operating Temperature Range, T_{opr}	
NTE3052 & NTE3053	-40° to $+80^\circ\text{C}$
NTE3054	-25° to $+85^\circ\text{C}$
NTE3055	-40° to $+85^\circ\text{C}$
Storage Temperature Range, T_{stg}	
NTE3052 & NTE3053	-40° to $+80^\circ\text{C}$
NTE3054	-25° to $+85^\circ\text{C}$
NTE3055	-40° 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	$I_F = 20\text{mA}$	-	10.5	14.0	mcd
NTE3053			7.0	10.5	14.0	mcd
NTE3054		$I_F = 10\text{mA}$	800	2000	-	μcd
NTE3055			30	-	60	mcd
Peak Emission Wavelength NTE3052	λ_P	$I_F = 20\text{mA}$	655	660	665	nm
NTE3053			630	635	638	nm
NTE3054			-	565	-	nm
NTE3055		$I_F = 10\text{mA}$	-	590	-	nm
Spectral Line Half-Width NTE3052, NTE3053	$\Delta\lambda$	$I_F = 20\text{mA}$	19	24	29	nm
NTE3054			-	30	-	nm
NTE3055		$I_F = 10\text{mA}$	-	20	-	nm
Forward Voltage, Any Segment or D.P. NTE3052	V_F	$I_F = 20\text{mA}$	1.6	1.85	2.4	V
NTE3053			1.8	2.0	2.4	V
NTE3054			-	2.1	2.8	V
NTE3055		$I_F = 10\text{mA}$	-	2.0	2.5	V
Reverse Current, Any Segment or D.P. NTE3053	I_R	$V_R = 5\text{V}$	-	-	10	μA
All Other Devices (Except NTE3055)			-	-	100	μA
Luminous Intensity Matching Ratio NTE3055	I_{V-m}	$I_F = 20\text{mA}$	-	-	1.5:1	
All Other Devices		$I_F = 10\text{mA}$	-	-	2:1	

Pin Connection Diagram





*** NOTE:** Dimension for NTE3053 and NTE3055 is $.290$ (7.37).