

## NTE3051 0.27" Polarity and Overflow Numeric Display, Common Anode

**Description:**

The NTE3051 display is mounted on a lead-frame assembly which is then cast within a clear, electrically non-conductive, transparent plastic compound.

**Features:**

- 0.27" High Characters
- High Brightness
- Low Power Requirements
- Single-Plane Wide-Angle Visibility
- Compatible with Most TTL and DTL Circuits

**Absolute Maximum Ratings:** (Over Ambient Temperature Range unless otherwise specified)

Reverse Voltage ( $T_A = +25^\circ\text{C}$ ),  $V_R$   
 Each Segment ..... 6V  
 Decimal Point ..... 3V  
 Peak Forward Current, each Segment or Decimal Point (Note 1),  $I_{FP}$  ..... 200mA  
 Continuous Forward Current,  $I_F$   
 Each Segment or Decimal Point ..... 30mA  
 Total Device ..... 150mA  
 Operating Ambient Temperature Range,  $T_A$  .....  $0^\circ$  to  $+70^\circ\text{C}$   
 Storage Temperature Range,  $T_{stg}$  .....  $-55^\circ$  to  $+100^\circ\text{C}$

Note 1. This value applies for  $PRR \geq 60\text{Hz}$ , Duty Cycle  $\leq 10\%$ .

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Luminous Intensity Each Segment	$I_V$	$I_F = 20\text{mA}$ , Note 2	100	275	–	$\mu\text{cd}$
Decimal Point			40	110	–	$\mu\text{cd}$
Wavelength at Peak Emission Each Segment	$\lambda_P$	$I_F = 20\text{mA}$	640	660	680	nm
Decimal Point			645	665	685	nm
Spectral Bandwidth between Half Points	B	$I_F = 20\text{mA}$	–	20	–	nm

Note 2. Luminous intensity is measured with a solar cell and filter combination which approximates the CIE (International Commission on Illumination) eye-response curve.

**Operating Characteristics (Cont'd):** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Average Temperature Coefficient of Static Forward Voltage Each Segment		$I_F = 20\text{mA}$ , $T_A = 0^\circ$ to $+70^\circ\text{C}$	-	-2.7	-	$\text{mV}/^\circ\text{C}$
Decimal Point			-	1.4	-	$\text{mV}/^\circ\text{C}$
Static Reverse Current	$I_R$	$V_R = 3\text{V}$	-	-	100	$\mu\text{A}$
Anode-to-Cathode Capacitance Each Segment	C	$V_R = 0$ , $f = 1\text{MHz}$	-	85	-	$\text{pF}$
Decimal Point			-	120	-	$\text{pF}$

**Pin Connection Diagram**

