

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° to $+70^\circ\text{C}$
 Storage Temperature Range, T_{stg} -55° 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 | – | μcd |
| Decimal Point | | | 40 | 110 | – | μcd |
| Wavelength at Peak Emission Each Segment | λ_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 | μA |
| Anode-to-Cathode Capacitance Each Segment | C | $V_R = 0$, $f = 1\text{MHz}$ | - | 85 | - | pF |
| Decimal Point | | | - | 120 | - | pF |

Pin Connection Diagram

