

Red GaAsP 0.3-Inch 7-Segment Digit

Optoelectronic Products

MAN71A, MAN72A MAN73A, MAN74A

General Description

The MAN71A, MAN72A, MAN73A and MAN74A are red GaAsP 7-segment LED displays with 0.3-inch character height. They can be mounted in arrays with 0.400-inch center-to-center spacing.

Low Power Consumption

Solid State Reliability—Long Operation Life

Impact Resistant Plastic Case

Standard 14-Pin DIP Configuration

Wide Viewing Angle

Intensity Coding for Uniform Display

**MAN71A—Common Anode Digit, Right-Hand
Decimal Point**

**MAN72A—Common Anode Digit, Left-Hand
Decimal Point**

**MAN73A—Common Anode Overflow ± Digit,
Left-Hand Decimal Point**

**MAN74A—Common Cathode Digit, Right-Hand
Decimal Point**

Absolute Maximum Ratings

Maximum Temperature and Humidity

Storage Temperature	-40°C to +85°C
Operating Temperature	-40°C to +85°C
Pin Temperature (Soldering, 5 s)	260°C
Relative Humidity at 65°C	98%

Maximum Voltage and Currents

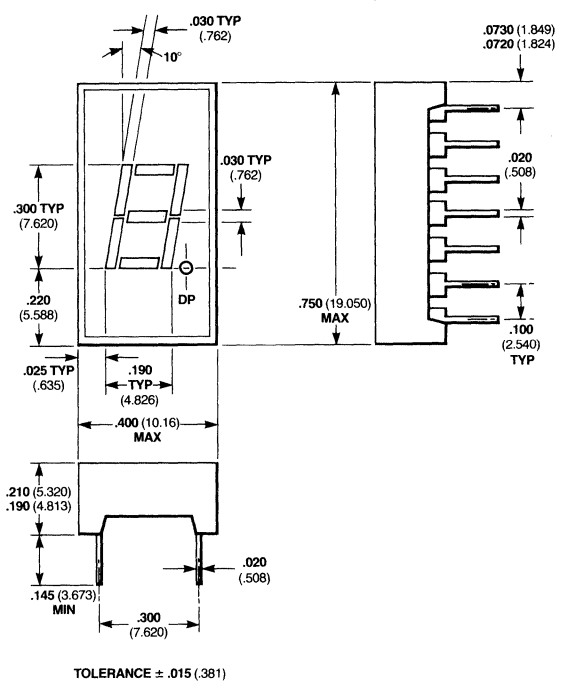
V_R	Reverse Voltage	5.0 V
I_F	Average Forward dc Current / Segment or Decimal Point	30 mA
	Derate from 25°C Ambient Temperature	0.5 mA/°C
I_{pk}	Peak Forward Current / Segment or Decimal Point (100 μ s pulse)	
	1000 pps, $T_A = 25^\circ\text{C}$	200 mA

Electrical and Radiant Characteristics $T_A = 25^\circ\text{C}$

Symbol	Characteristic	Min	Typ	Max	Units	Test Conditions
V_F	Forward Voltage, Each Segment		1.7	2.0	V	$I_F = 20\text{ mA}$
I_R	Reverse Current, Each Segment			100	μA	$V_R = 5.0\text{ V}$
I_O	Axial Luminous Intensity, Each Segment	125	250		μcd	$I_F = 10\text{ mA}$
ΔI_O	Intensity Matching, Segment-to-Segment		± 33		%	$I_F = 20\text{ mA}$
	Intensity Matching Within One Intensity Class		± 20		%	$I_F = 20\text{ mA}$, all segments at once
λ_{pk}	Peak Wavelength		660		nm	$I_F = 20\text{ mA}$

Package Outline

MAN71A



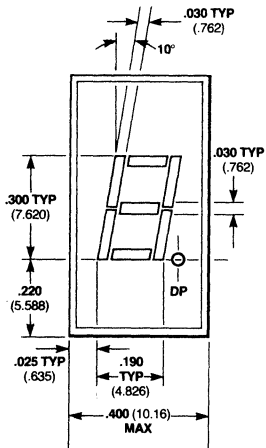
Notes

All dimensions in inches **bold** and millimeters (parentheses)
Tolerance unless specified = $\pm .015$ ($\pm .381$)
Other packages following

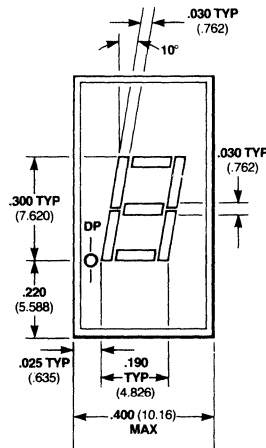
Connection Diagrams

MAN71A, MAN72A MAN73A, MAN74A

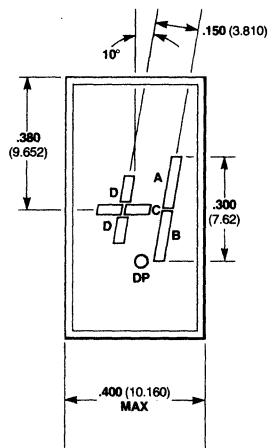
3



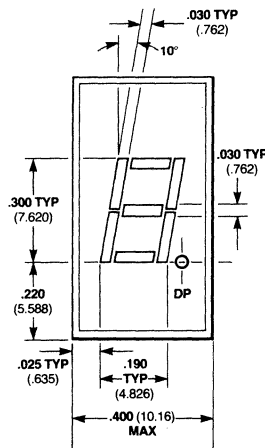
- Pin MAN71A**
- 1 Cathode A
 - 2 Cathode F
 - 3 Common Anode
 - 4 No Pin
 - 5 No Pin
 - 6 NC
 - 7 Cathode E
 - 8 Cathode D
 - 9 Cathode DP
 - 10 Cathode C
 - 11 Cathode G
 - 12 No Pin
 - 13 Cathode B
 - 14 Common Anode



- Pin MAN72A**
- 1 Cathode A
 - 2 Cathode F
 - 3 Common Anode
 - 4 No Pin
 - 5 No Pin
 - 6 Cathode DP
 - 7 Cathode E
 - 8 Cathode D
 - 9 NC
 - 10 Cathode C
 - 11 Cathode G
 - 12 No Pin
 - 13 Cathode B
 - 14 Common Anode



- Pin MAN73A**
- 1 Anode C, D
 - 2 No Pin
 - 3 Anode C, D
 - 4 No Pin
 - 5 No Pin
 - 6 No Pin
 - 7 Cathode D
 - 8 Cathode C
 - 9 NC
 - 10 Cathode B
 - 11 Cathode A
 - 12 No Pin
 - 13 No Pin
 - 14 Anode A, B

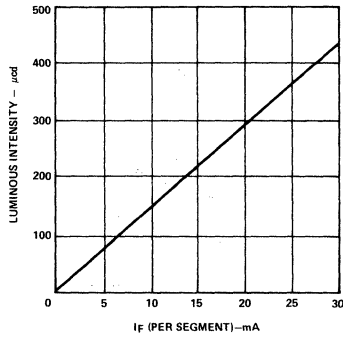


- Pin MAN74A**
- 1 Anode F
 - 2 Anode G
 - 3 No Pin
 - 4 Common Cathode
 - 5 No Pin
 - 6 Anode E
 - 7 Anode D
 - 8 Anode C
 - 9 Anode DP
 - 10 No Pin
 - 11 No Pin
 - 12 Common Cathode
 - 13 Anode B
 - 14 Anode A

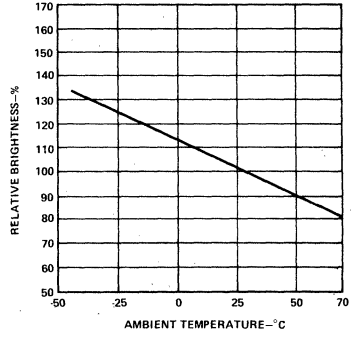
Typical Electrical Characteristic Curves

MAN71A, MAN72A MAN73A, MAN74A

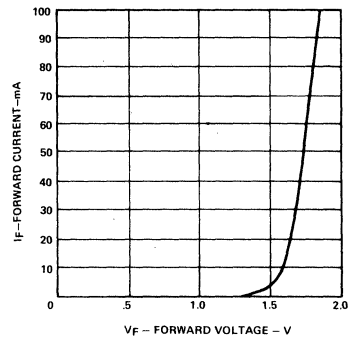
Luminous Intensity vs Forward Current



Luminous Intensity vs Temperature



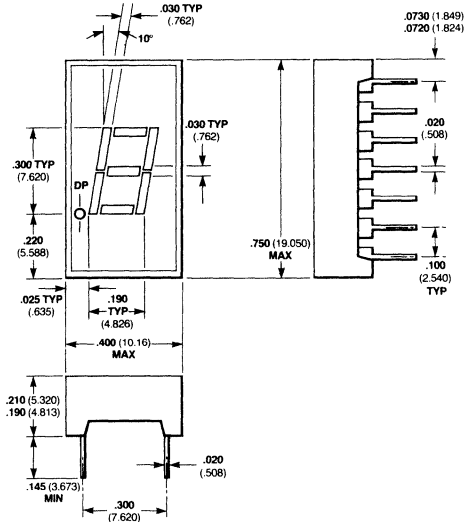
Forward Current vs Forward Voltage



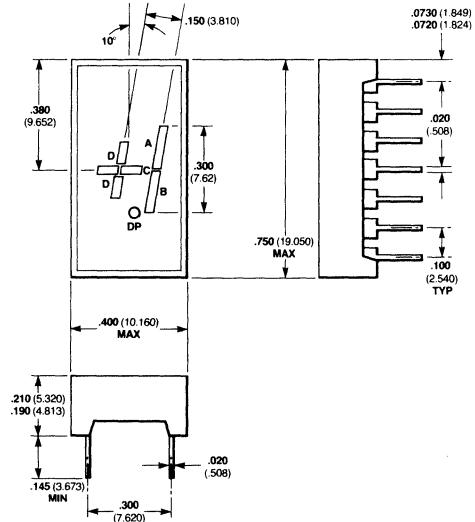
Package Outlines

MAN71A, MAN72A
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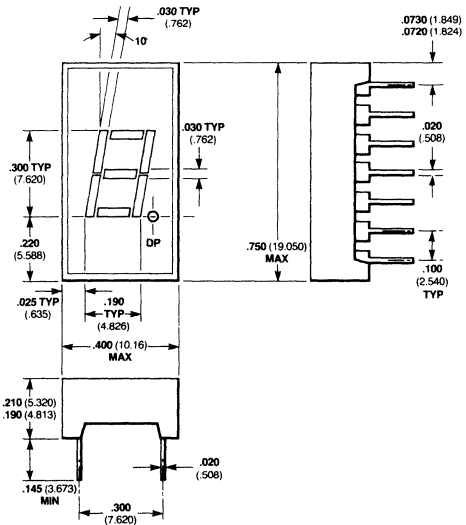
MAN72A



MAN73A



MAN74A



Notes

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