

Orange Super GaAsP 0.3-Inch 7-Segment Digit

Optoelectronic Products

MAN3610A, MAN3620A MAN3630A, MAN3640A

General Description

The MAN3610A, MAN3620A, MAN3630A, and MAN3640A are orange Super GaAsP 7-segment displays with a 0.3-inch character height. They can be mounted in arrays with 0.400-inch center-to-center.

Low Power Consumption

Solid State Reliability—Long Operation Life

Impact Resistant Plastic Case

Standard 14-pin DIP Configuration

Wide Viewing Angle

Categorized for Luminous Intensity

**MAN3610A—Common Anode, Right-Hand
Decimal Point**

**MAN3620A—Common Anode, Left-Hand
Decimal Point**

**MAN3630A—Common Anode, Overflow \pm , Right-
Hand Decimal Point**

**MAN3640A—Common Cathode, Right-Hand
Decimal Point**

Absolute Maximum Ratings

Maximum Temperature and Humidity

Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
Pin Temperature (Soldering, 5 s)	260°C

Maximum Power Dissipation

Total Dissipation at $T_A = 25^\circ\text{C}$

MAN3610A, MAN3620A,	
MAN3640A	600 mW
MAN3630A	375 mW

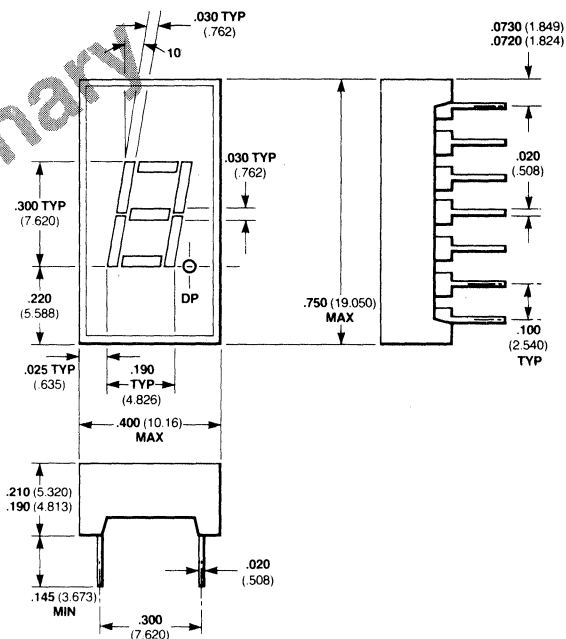
Derate Linearly from 25°C

MAN3610, MAN3620	-8.6 mW/°C
MAN3640A	-8.6 mW/°C
MAN3630A	-5.36 mW/°C

Maximum Voltage and Currents

V_R	Reverse Voltage	6.0 V
I_F	Average Forward dc Current/Segment or Decimal Point	30 mA

Package Outline MAN3610A

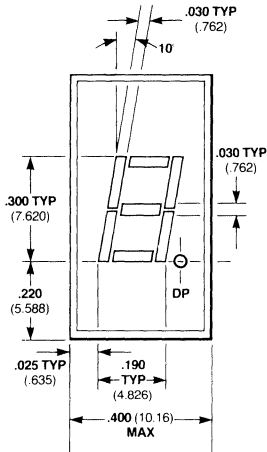


Notes

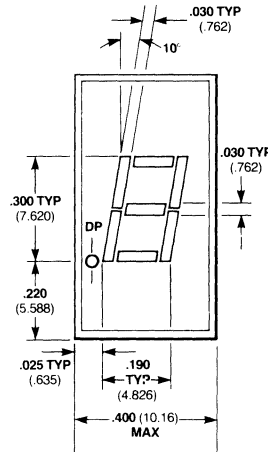
All dimensions in inches **bold** and millimeters (parentheses).
Other packages following.

Connection Diagrams and Pin Assignments

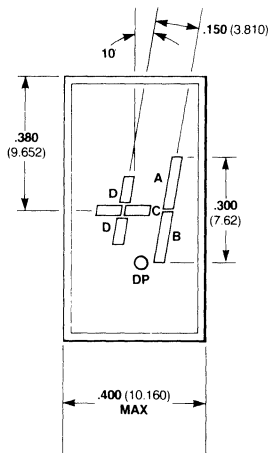
MAN3610A, MAN3620A MAN3630A, MAN3640A



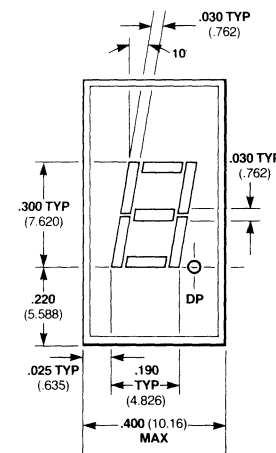
Pin	MAN3610A
1	Cathode A
2	Cathode F
3	Common Anode
4	No Pin
5	No Pin
6	NC
7	Cathode E
8	Cathode D
9	Cathode DP
10	Cathode C
11	Cathode G
12	No Pin
13	Cathode B
14	Common Anode



Pin	MAN3620A
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	MAN3630A
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	MAN3640A
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

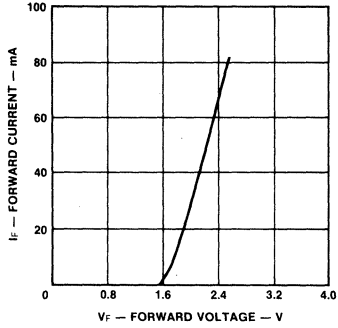
Electrical and Radiant Characteristics $T_A = 25^\circ\text{C}$

Symbol	Characteristics	Min	Typ	Max	Units	Test Conditions
V_F	Forward Voltage / Segment or Decimal Point			2.5	V	$I_F = 20 \text{ mA}$
I_R	Reverse Current / Segment or Decimal Point			100	μA	$V_R = 5.0 \text{ A}$
I_O	Axial Luminous Intensity, Each Segment	510			μcd	$I_F = 10 \text{ mA}$
$I_{O,DP}$	D.P. and Segment C, D of MAN3630A	265			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		%	$I_F = 20 \text{ mA}$
λ_{pk}	Peak Wavelength		630		nm	

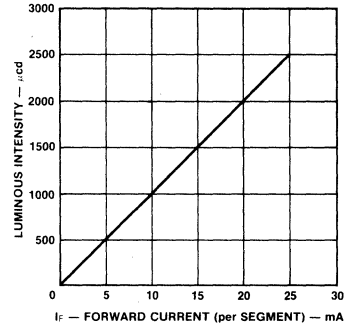
Typical Electrical Characteristic Curves

MAN3610A, MAN3620A MAN3630A, MAN3640A

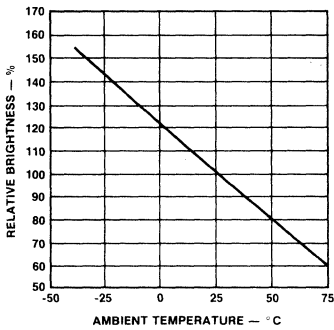
Forward Current vs Forward Voltage



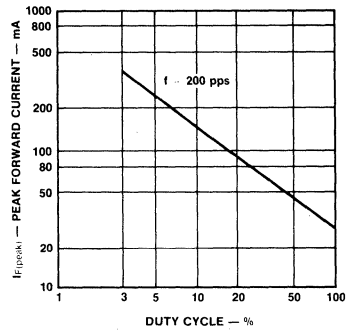
Luminous Intensity vs Forward Current



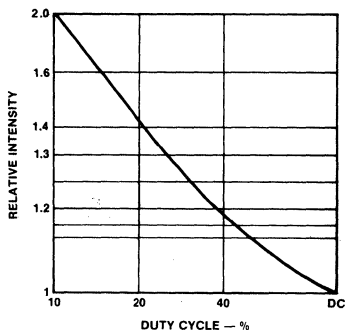
Luminous Intensity vs Temperature



Max Peak Current vs Duty Cycle



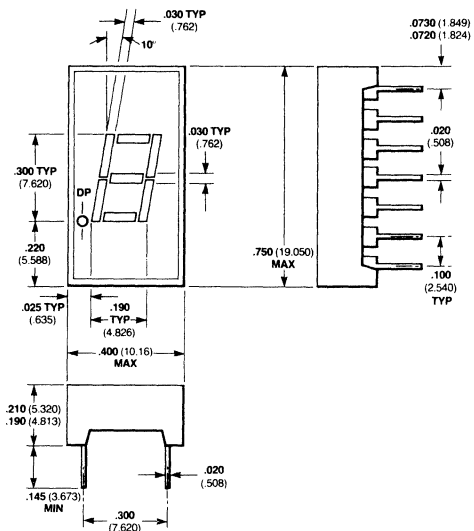
Luminous Intensity vs Duty Cycle



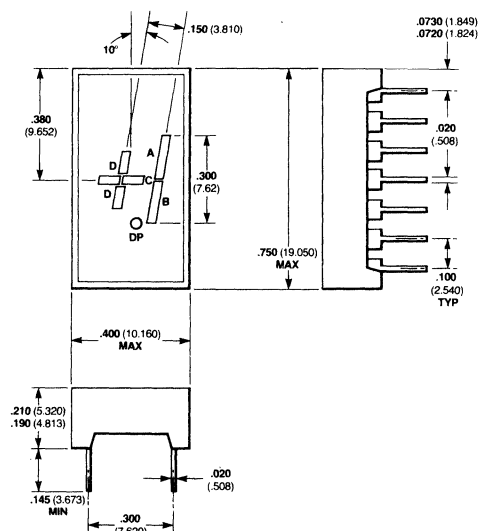
Package Outlines

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MAN3620A

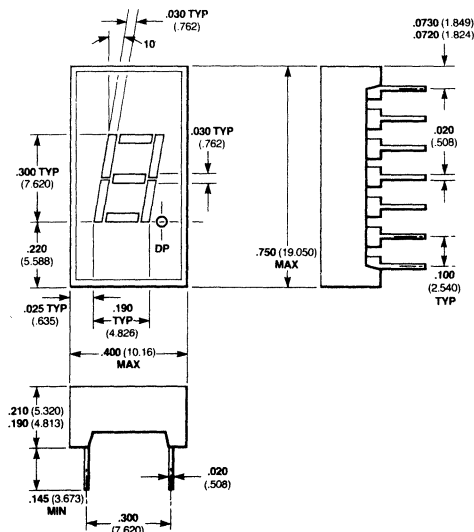


MAN3630A



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MAN3640A



Notes
 All dimensions in inches bold and millimeters (parentheses).
 Total intensity divided by number of segments.