

# 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

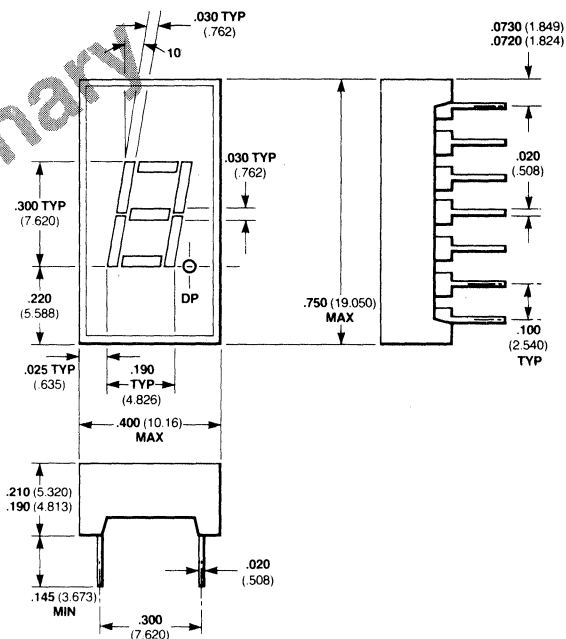
Derate Linearly from 25°C

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

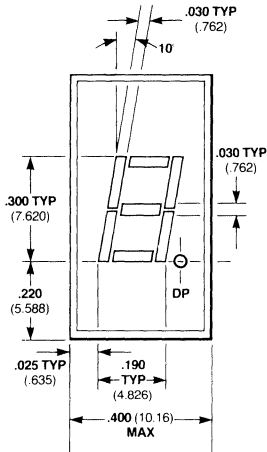


### Notes

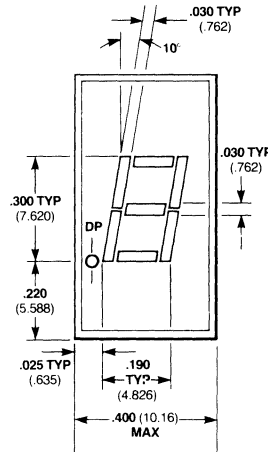
All dimensions in inches **bold** and millimeters (parentheses).  
Other packages following.

# Connection Diagrams and Pin Assignments

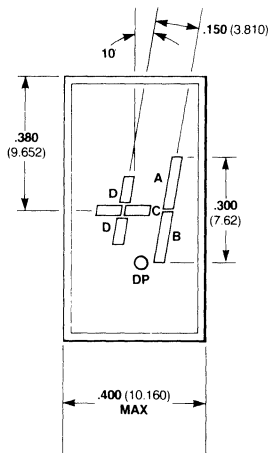
# MAN3610A, MAN3620A MAN3630A, MAN3640A



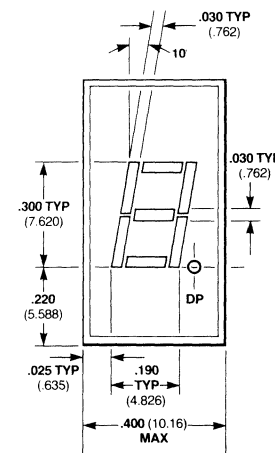
Pin	MAN3610A
1	Cathode A
2	Cathode F
3	Common Anode
4	No Pin
5	No Pin
6	NC
7	Cathode E
8	Cathode D
9	Cathode DP
10	Cathode C
11	Cathode G
12	No Pin
13	Cathode B
14	Common Anode



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

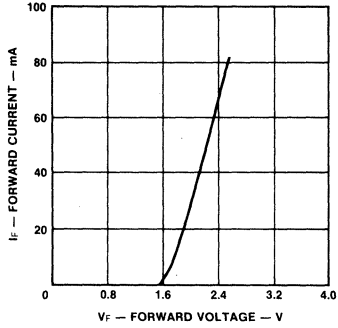
## Electrical and Radiant Characteristics $T_A = 25^\circ\text{C}$

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	$\mu\text{A}$	$V_R = 5.0 \text{ A}$
$I_O$	Axial Luminous Intensity, Each Segment	510			$\mu\text{cd}$	$I_F = 10 \text{ mA}$
$I_{O,DP}$	D.P. and Segment C, D of MAN3630A	265			$\mu\text{cd}$	$I_F = 10 \text{ mA}$
$\Delta I_O$	Intensity Matching, Segment-to-Segment		$\pm 33$		%	$I_F = 20 \text{ mA}$
	Intensity Matching Within One Intensity Class		$\pm 20$		%	$I_F = 20 \text{ mA}$
$\lambda_{pk}$	Peak Wavelength		630		nm	

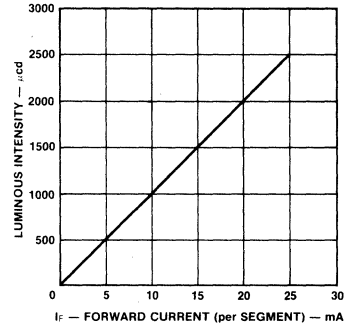
# Typical Electrical Characteristic Curves

# MAN3610A, MAN3620A MAN3630A, MAN3640A

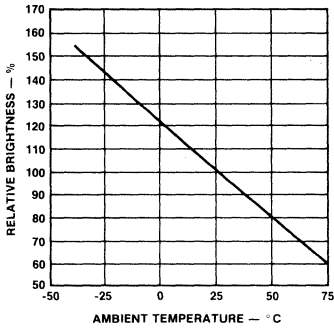
**Forward Current vs Forward Voltage**



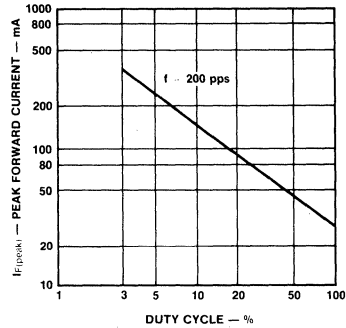
**Luminous Intensity vs Forward Current**



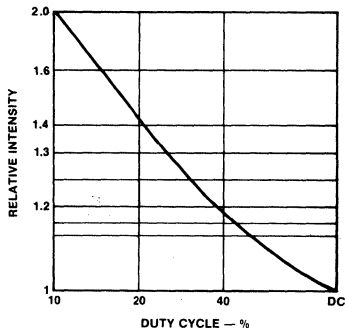
**Luminous Intensity vs Temperature**



**Max Peak Current vs Duty Cycle**



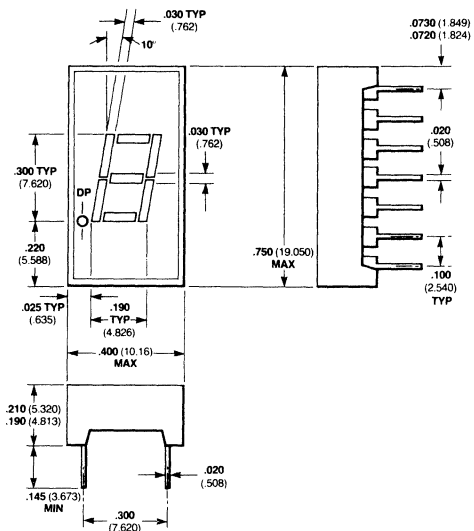
**Luminous Intensity vs Duty Cycle**



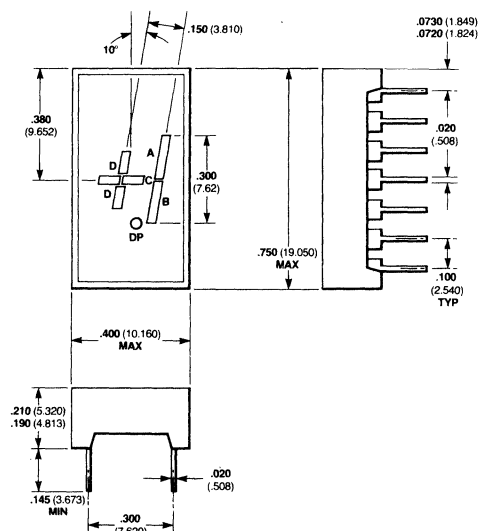
# Package Outlines

# MAN3610A, MAN3620A MAN3630A, MAN3640A

**MAN3620A**

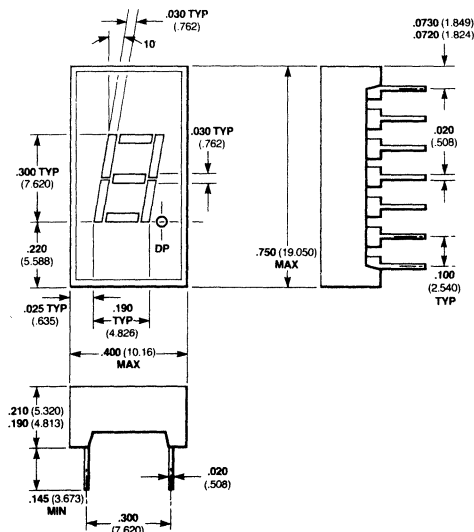


**MAN3630A**



3

**MAN3640A**



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