

EVERLIGHT

20.3mm (0.8 inch) One Digit

NUMERIC THREE DIGIT STICK DISPLAY

AllInGaP Red (632nm) MAN8H10C, MAN8H40C

AllInGaP Red (639nm) MAN8R10C, MAN8R40C

AllInGaP Yellow MAN8Y10C, MAN8Y40C

PACKAGE DIMENSIONS	FEATURES
<p>NOTES:</p> <ul style="list-style-type: none">•Dimensions are in mm (inches)•Tolerances are +/- 0.25 (0.010) unless otherwise stated.	<ul style="list-style-type: none">•Bright Bold Segments•Common Anode/Cathode•Low Power Consumption•Low Current Capability•MAN8H10C Red Segments, others neutral•MAN8HX0C Red Face others Gray Face•Epoxy Encapsulated PCB•High Performance
	APPLICATIONS
	<ul style="list-style-type: none">•Appliances•Automotive•Instrumentation•Process Control

MODELS AVAILABLE

Part Number	Colour	Description	Special
MAN8H10C	AllInGaP 632nm	Single Digit, RHDP, Common Anode	Low Current Capability
MAN8H40C	AllInGaP 632nm	Single Digit, RHDP, Common Cathode	Low Current Capability
MAN8R10C	AllInGaP 639nm	Single Digit, RHDP, Common Anode	Low Current Capability
MAN8R40C	AllInGaP 639nm	Single Digit, RHDP, Common Cathode	Low Current Capability
MAN8Y10C	AllInGaP Yellow	Single Digit, RHDP, Common Anode	Low Current Capability
MAN8Y40C	AllInGaP Yellow	Single Digit, RHDP, Common Cathode	Low Current Capability

(For other colour options, contact your local area Sales Manager)



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ABSOLUTE MAXIMUM RATINGS⁽¹⁾ ($T_A = 25^{\circ}\text{C}$, unless otherwise specified)

Part Number	MAN8H10C	MAN8R10C	MAN8Y10C		
Parameter	MAN8H40C	MAN8R40C	MAN8Y40C	Units	
Continuous Forward Current (each segment)	25	25	25	mA	
Peak Forward Current ($F = 10\text{KHz}$, $D/F = 1/10$)	100	100	100	mA	
Power Dissipation (P_D)	60	60	60	mW	
*Derate Linearly from 25°C	0.36	0.36	0.36	mW	
Reverse Voltage per Die				5 Volts	
Operating and Storage Temperature Range				-40°C to +85°C	
Lead soldering time (1/16 inch from standoffs)				5 seconds @ 230°C	

ELECTRO-OPTICAL CHARACTERISTICS⁽¹⁾ ($T_A = 25^{\circ}\text{C}$, unless otherwise specified)

Part Number	MAN8H10C	MAN8R10C	MAN8Y10C		
Parameter	MAN8H40C	MAN8R40C	MAN8Y40C	Units	Test Condition
Luminous intensity⁽²⁾ (I_V)					
Minimum (Standard Current)	4500	4500	4500	ucd	$I_F = 10\text{mA}$
Typical (Standard Current)	5500	5500	5500	ucd	$I_F = 10\text{mA}$
Minimum (Low Current)	510	510	510	ucd	$I_F = 2\text{mA}$
Typical (Low Current)	1000	1000	1000	ucd	$I_F = 2\text{mA}$
Forward Voltage (V_F)					
Typical (Standard Current)	2.05	2.05	2.05	Volts	$I_F = 20\text{mA}$
Maximum (Standard Current)	2.40	2.40	2.40	Volts	$I_F = 20\text{mA}$
Typical (Low Current)	1.80	1.80	1.80	Volts	$I_F = 2\text{mA}$
Maximum (Low Current)	2.20	2.20	2.20	Volts	$I_F = 2\text{mA}$
Peak Wavelength	632	639	591	nm	$I_F = 10\text{mA}$
Dominant Wavelength	624	631	585	nm	$I_F = 10\text{mA}$
Spectral Line 1/2 Width	20	20	20	nm	$I_F = 10\text{mA}$
Reverse B⁽³⁾. Voltage (V_R)	5	5	5	Volts	$I_R = 100\mu\text{A}$

NOTES:

(1) Data per individual LED element

(2) Luminous intensity (ucd) = average light output per segment

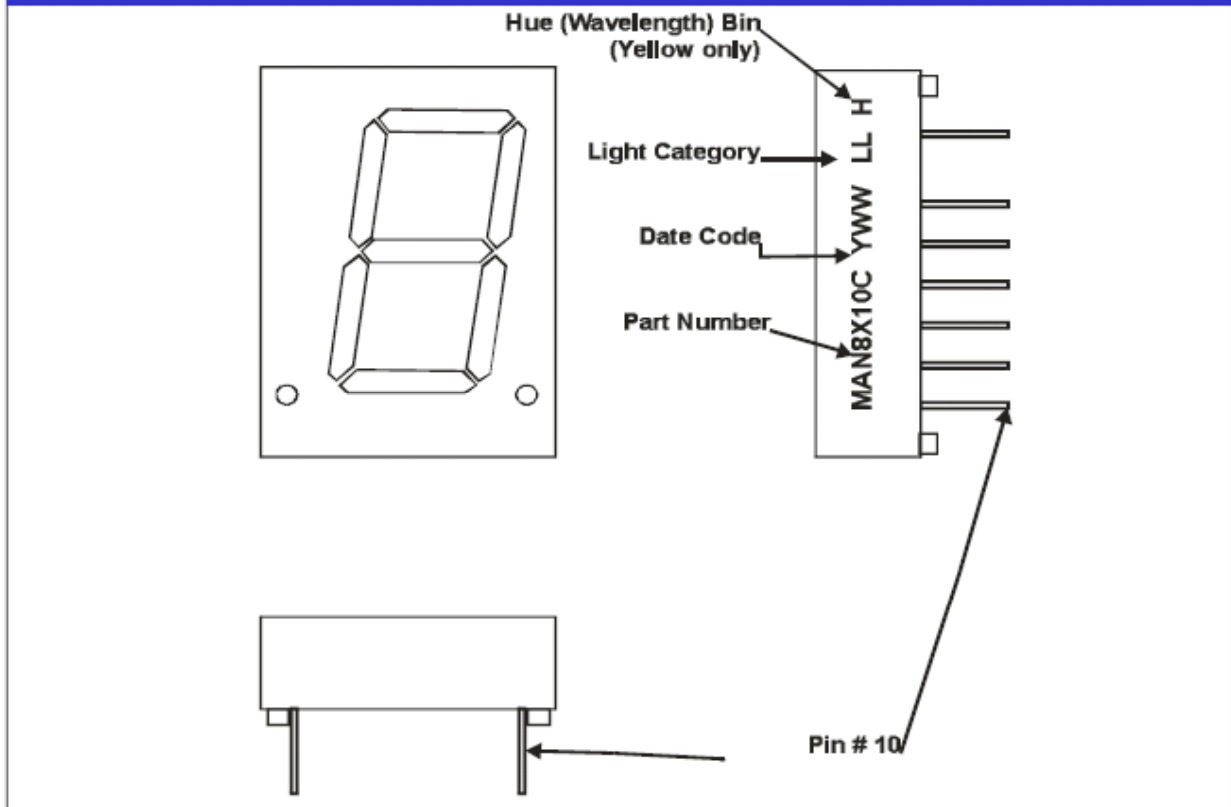
(3) B = breakdown

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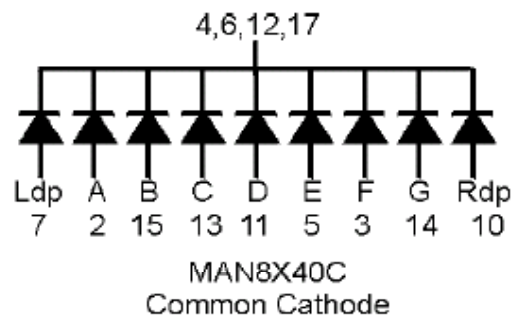
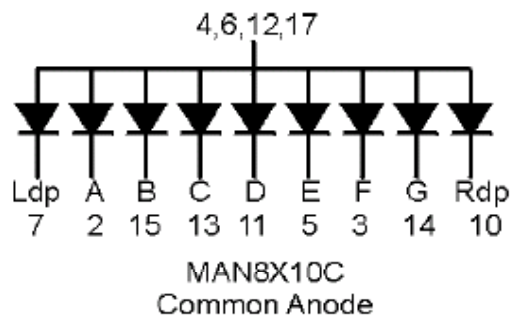
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PIN ORIENTATION, SEGMENT IDENTIFICATION, AND PRODUCT MARKING



SCHEMATICS

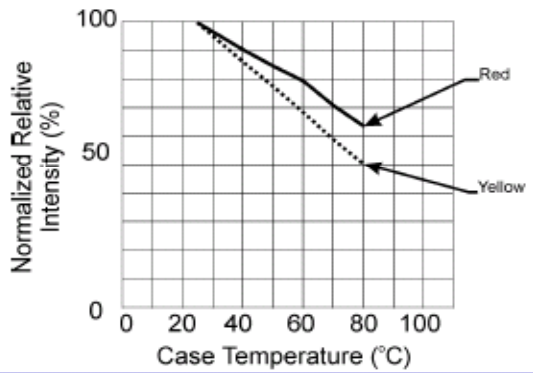


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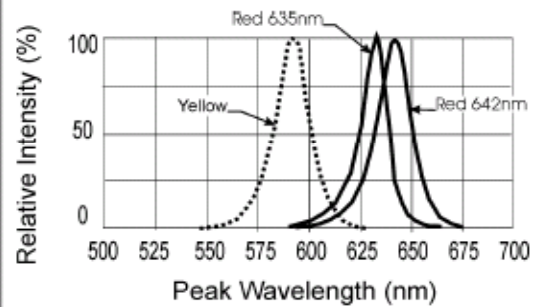
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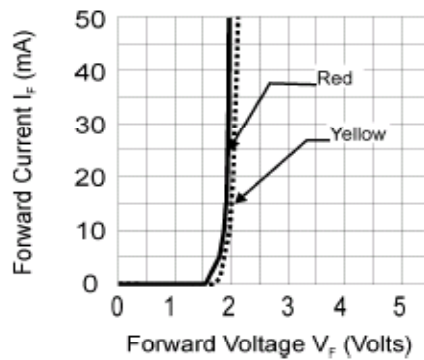
GRAPHICAL DATA AlInGaP ($T_A = 25^\circ\text{C}$, unless otherwise specified)



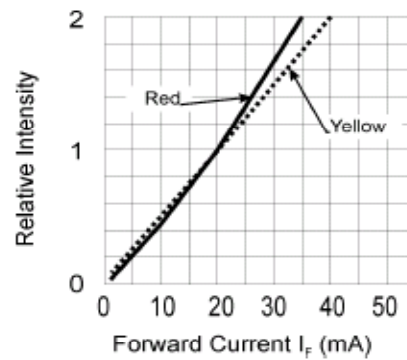
Relative Intensity vs Case Temp.



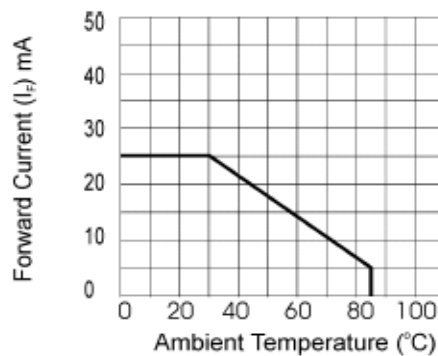
Spectral Response



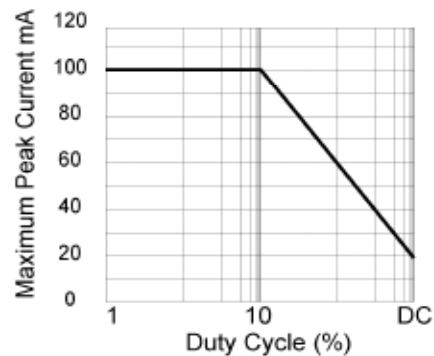
Forward Current vs Forward Voltage



Luminous Intensity vs Forward Current



Maximum Forward Current vs Ambient Temperature



Maximum Peak Current vs Duty Cycle