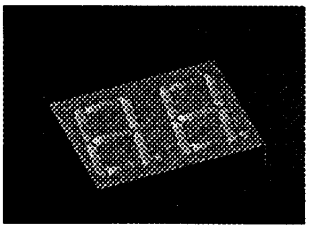
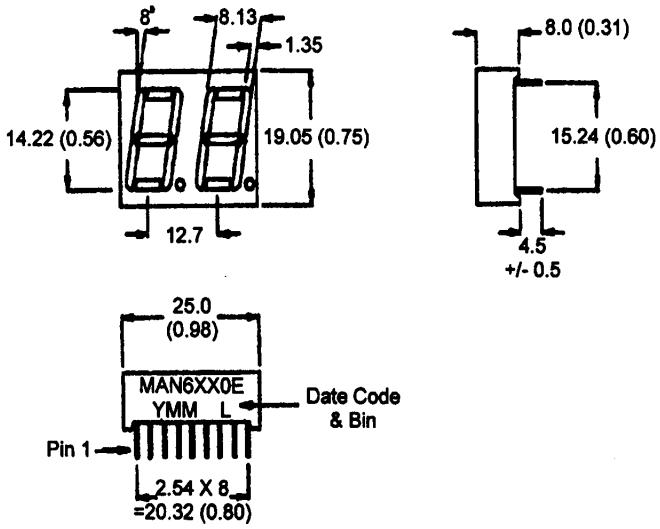
FAIRCHILD
SEMICONDUCTOR™

0.56 INCH (14.2 MM) DUAL DIGIT STICK DISPLAY



BRIGHT RED MAN6110E, MAN6140E
GREEN MAN6410E, MAN6440E
HIGH EFFICIENCY RED MAN6910E, MAN6940E

PACKAGE DIMENSIONS



NOTES: Dimensions are in mm (inch).
All pins are 0.6 (0.02) diameter
Tolerances are ± 0.25 (0.1) unless otherwise noted.

FEATURES

Easy to read digits.
Common anode or cathode.
Low power consumption.
Bold segments that are highly visible.
High brightness with high contrast.
White segments on a grey face
For MAN64X0E and MAN61X0E.
Red segments on a red face
For MAN69X0E.
Directly compatible with integrated circuits.
Rugged plastic/epoxy construction.

APPLICATIONS

Digital readout displays.
Instrument panels.

MODEL NUMBERS

Part number	Color	Description
MAN6110E	Bright Red	Common Anode; right hand decimal
MAN6140E	Bright Red	Common Cathode; right hand decimal
MAN6410E	Green	Common Anode; right hand decimal
MAN6440E	Green	Common Cathode; right hand decimal
MAN6910E	High efficiency red	Common Anode; right hand decimal
MAN6940E	High efficiency red	Common Cathode; right hand decimal

(For other color options, contact your local area Sales Office)

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ABSOLUTE MAXIMUM RATING (T_A=25°C unless otherwise specified)

Part number	B.Red MAN 6110E 6140E	Green MAN 6410E 6440E	High Eff. Red MAN 6910E 6940E	Unit
Continuous forward current (I_f) Per Segment	15	30	30	mA
Peak forward current per die (I_f) (at f = 1.0 KHz, Duty factor = 1/10)	50	160	160	mA
Power dissipation (P_D)	40*	100*	100*	mW
*Derate Linearly from 25°C	See graphical data attached			

Reverse voltage per dice.....5V
Operating and Storage temperature range.....- 40°C to +85°C
Lead soldering time (at 1/16 inch from the bottom of lamp).....5 seconds @ 230°C

ELECTRO - OPTICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Part number	Bright Red MAN 6110E 6140E	Green MAN 6410E 6440E	High Eff. Red MAN 6910E 6940E	Test Condition
Luminous intensity (ucd)				
minimum	300	800	800	I_F = 10 mA
typical	700	2000	2000	I_F = 10 mA
Forward voltage (V_F)				
typical	2.1	2.1	2.0	I_F = 20 mA
maximum	2.6	2.8	2.8	I_F = 20 mA
Peak wavelength (nm)	697	570	635	I_F = 20 mA
Spectral line half width (nm)	90	30	45	I_F = 20 mA
Reverse breakdown voltage (V_R)	5	5	5	I_R = 100 uA

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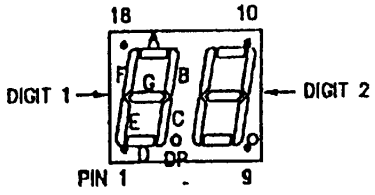
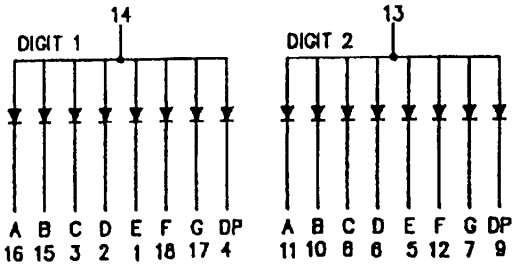
DUAL DIGIT STICK DISPLAY

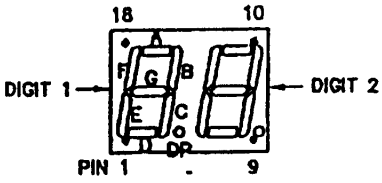
PINOUT

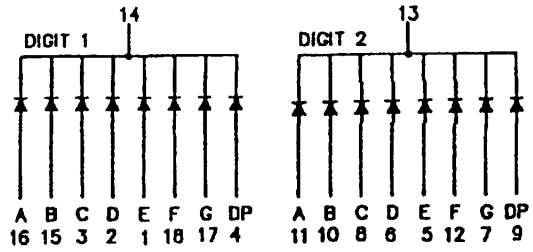
MAN6X10E - Common Anode





MAN6X40E - Common Cathode





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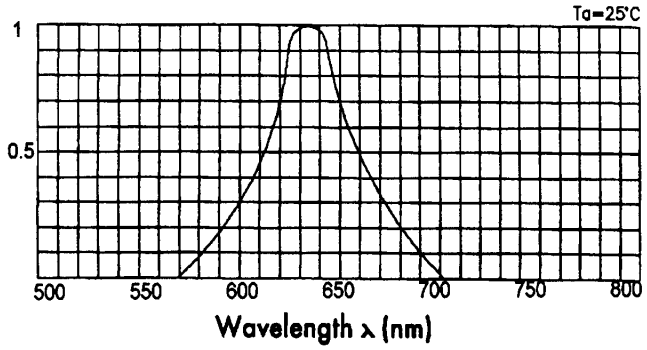
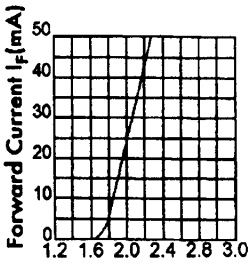
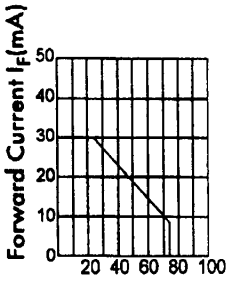
GRAPHICAL DETAIL: Bright Red (T_A = 25°C unless otherwise specified)



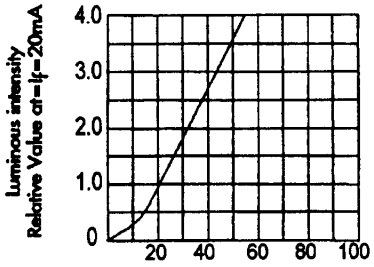
RELATIVE INTENSITY VS. WAVELENGTH



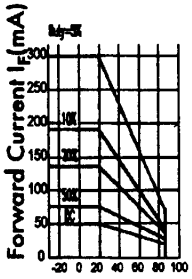
FORWARD VOLTAGE (V_f)-volts
FORWARD CURRENT VS.
FORWARD VOLTAGE



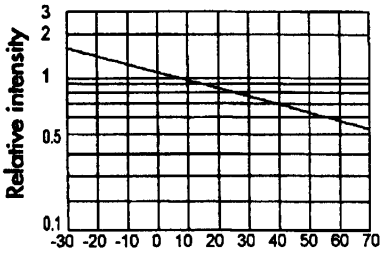
AMBIENT TEMPERATURE T_A (°C)



I_F-Forward current-mA
RELATIVE LUMINOUS INTENSITY
VS. FORWARD CURRENT



AMBIENT TEMPERATURE (°C)
VS. FORWARD CURRENT CAPACITY



AMBIENT TEMPERATURE T_A (°C)

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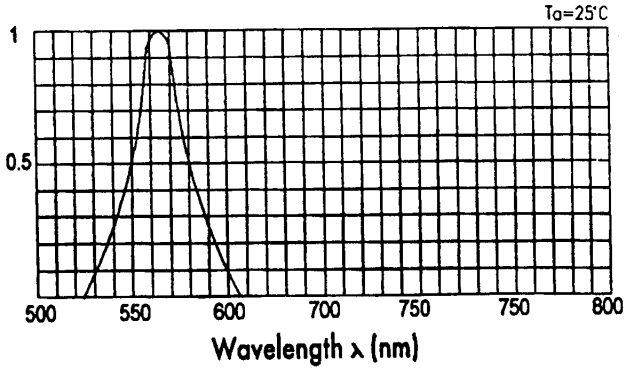
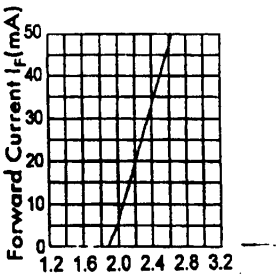
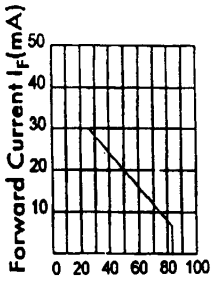
GRAPHICAL DETAIL: Green (T_A = 25°C unless otherwise specified)



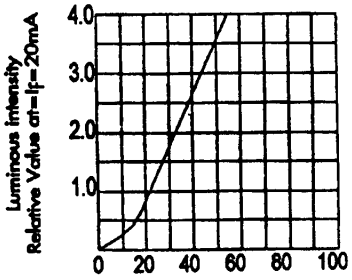
RELATIVE INTENSITY VS. WAVELENGTH



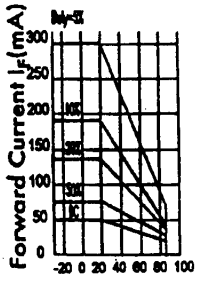
FORWARD VOLTAGE (V_f)-volts
FORWARD CURRENT VS.
FORWARD VOLTAGE



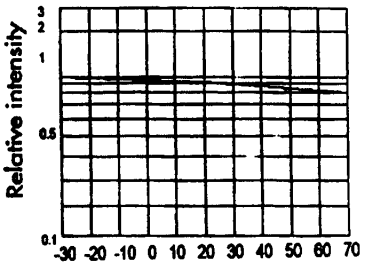
AMBIENT TEMPERATURE T_A (°C)



I_f-Forward current-mA
RELATIVE LUMINOUS INTENSITY
VS. FORWARD CURRENT



AMBIENT TEMPERATURE (°C)
VS. FORWARD CURRENT CAPACITY



AMBIENT TEMPERATURE T_A (°C)

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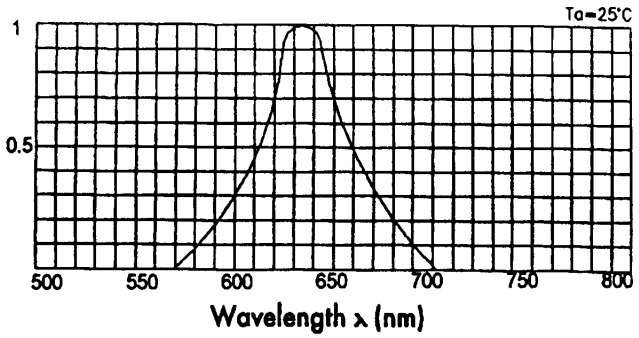
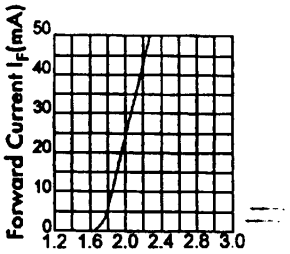
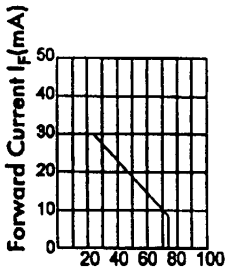
GRAPHICAL DETAIL: High Efficiency Red (T_A = 25°C unless otherwise specified)



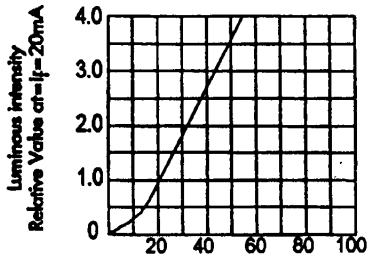
RELATIVE INTENSITY VS. WAVELENGTH



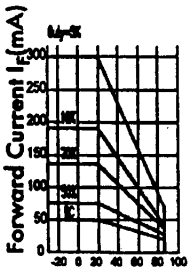
FORWARD VOLTAGE (V_f)-volts
FORWARD CURRENT VS.
FORWARD VOLTAGE



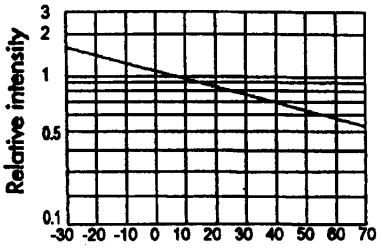
AMBIENT TEMPERATURE T_A (°C)



If-Forward current-mA
RELATIVE LUMINOUS INTENSITY
VS. FORWARD CURRENT



AMBIENT TEMPERATURE (°C)
VS. FORWARD CURRENT CAPACITY



AMBIENT TEMPERATURE T_A (°C)

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2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.