

DISPLAYS

.56 INCH (14.2 mm) SINGLE AND DUAL DIGITS





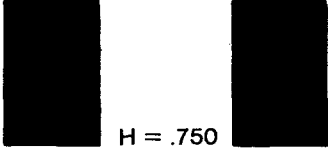
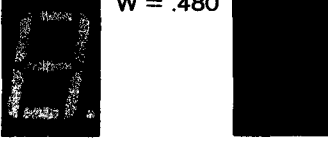
FEATURES:

Colors: green, orange, red, yellow, high efficiency red, improved reliability, high efficiency, I.C. compatible, low current consumption.



APPLICATIONS:

Automobiles, clocks, radios, pos terminals, computers, instruments, TV channel indicators, elevators, test equipment, numerical control equipment.

ACTUAL DIGIT SIZE	DEVICE NO.	COLOR	DESCRIPTION	I _L (MIN) PER SEGMENT @ 10 MA	PKG. CODE
	MAN-6410 6610 6710 6810 6910	GREEN ORANGE RED YELLOW HI EFF RED	.56 INCH, COMMON ANODE, RIGHT HAND DECIMAL POINT 2 Digit	320 μ cd 510 μ cd 125 μ cd 510 μ cd 320 μ cd	NC*
	6440 6640 6740 6840 6940	GREEN ORANGE RED YELLOW HI EFF RED	.56 INCH, COMMON CATHODE RIGHT HAND DECIMAL POINT 2 Digit	320 μ cd 510 μ cd 125 μ cd 510 μ cd 320 μ cd	NC*
	6430 6630 6730 6830 6930	GREEN ORANGE RED YELLOW HI EFF RED	.56 INCH, COMMON ANODE, RIGHT HAND DECIMAL POINT 1½ Digit	320 μ cd 510 μ cd 125 μ cd 510 μ cd 320 μ cd	ND*
	6450 6650 6750 6850 6950	GREEN ORANGE RED YELLOW HI EFF RED	.56 INCH, COMMON CATHODE RIGHT HAND DECIMAL POINT 1½ Digit	320 μ cd 510 μ cd 125 μ cd 510 μ cd 320 μ cd	ND*
	6460 6660 6760 6860 6960	GREEN ORANGE RED YELLOW HI EFF RED	.56 INCH, COMMON ANODE, RIGHT HAND DECIMAL POINT 1 Digit	320 μ cd 510 μ cd 125 μ cd 510 μ cd 320 μ cd	NE*
	6480 6680 6780 6880 6980	GREEN ORANGE RED YELLOW HI EFF RED	.56 INCH, COMMON CATHODE RIGHT HAND DECIMAL POINT 1 Digit	320 μ cd 510 μ cd 125 μ cd 510 μ cd 320 μ cd	NE*

ABSOLUTE MAXIMUM RATINGS AT 25°C

OPERATING RANGE	-40°C TO +85°C
STORAGE TEMP. RANGE	-40°C TO +85°C
PEAK FORWARD CURRENT PER SEG. OR D.P.	60mA
DC FORWARD CURRENT PER SEG. OR D.P.	30mA
LEAD SOLDERING TEMPERATURE	260°C for 3 sec.
[1/16 inch (1.59mm) Below Seating Plane]	

*CURRENT PRODUCTION HAS .020" SQ. LEADS. NATIONAL WILL BE PROVIDING A .010" x .020" LEAD DIMENSION IN THE FUTURE.



DISPLAYS

.56 INCH (14.2 mm) SINGLE AND DUAL DIGITS ELECTRICAL/OPTICAL CHARACTERISTICS AT 25°C

.56 INCH, LED, SOLID STATE DISPLAYS						
	UNITS	GREEN MAN 64XX	ORANGE MAN 66XX	RED MAN 67XX	YELLOW MAN 68XX	HI-EFF RED MAN 69XX
Peak Wavelength	nm	565	635	655	583	635
Dominant Wavelength	nm	572	626	645	585	626
Luminous Intensity per Segment (Dig. Avg.) @ 10 mA	μ cd MIN.	320	510	125	510	510
Forward Voltage per Segment or D.P.	Volts TYP.	2.2 @ 20	2.2 @ 20	1.6 @ 20	2.2 @ 20	2.2 @ 20
	@ mA MAX.	2.5 @ 20	2.5 @ 20	2.0 @ 20	2.5 @ 20	2.5 @ 20
Temp. Coefficient of V_f	mV/°C	-2.0	-2.0	-2.0	-2.0	-2.0
Maximum Reverse Current per Seg. or D.P. @ -3V	μ A max	100	100	100	100	100
Response Time (nom.) 10%–90%	ns	100	100	10	100	100

PINOUT						
	2 Digit Common Anode RHDP	2 Digit Common Cathode RHDP	1½ Digit Common Anode RHDP	1½ Digit Common Cathode RHDP	1 Digit Common Anode RHDP	1 Digit Common Cathode RHDP
PIN	MAN 6X10	MAN 6X40	MAN 6X30	MAN 6X50	MAN 6X60	MAN 6X80
1	Ec1	Ea1	Cc1	Ca1	Ec	Ea
2	Dc1	Da1	Dc1	Da1	Dc	Da
3	Cc1	Ca1	Bc1	Ba1	com a	com c
4	DPc1	DPa1	DPc1	DPa1	Cc	Ca
5	Ec2	Ea2	Ec2	Ea2	DPc	DPa
6	Dc2	Da2	Dc2	Da2	Bc	Ba
7	Gc2	Ga2	Gc2	Ga2	Ac	Aa
8	Cc2	Ca2	Cc2	Ca2	com a	com c
9	DPc2	DPa2	DPc2	DPa2	Fc	Fa
10	Bc2	Ba2	Bc2	Ba2	Gc	Ga
11	Ac2	Aa2	Ac2	Aa2	—	—
12	Fc2	Fa2	Fc2	Fa2	—	—
13	a2	c2	a2	c2	—	—
14	a1	c1	a1	c1	—	—
15	Bc1	Ba1	Ac1	Aa1	—	—
16	Ac1	Aa1	NC	NC	—	—
17	Gc1	Ga1	NC	NC	—	—
18	Fc1	Fa1	NC	NC	—	—

SEGMENT, POLARITY, DIGIT

c=Cathode
a=Anode

