

**Harvatek International 2.0" 5x7 Dot Matrix Display
HCD-88442**

Official Product	HCD-88442	Customer Part No.	Data Sheet No.
	*****	*****	HCD-88442
Specifications are subject to change without notice. Data and drawings herein are copyrighted.	Feb. 13, 2008	Version of 1.2	Page 1/10

DISCLAIMER

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LIFE SUPPORT POLICY

HARVATEK’s products are not authorized for use as critical components in life support devices or systems without the express written approval of the President of HARVATEK or HARVATEK INTERNATIONAL. As used herein:

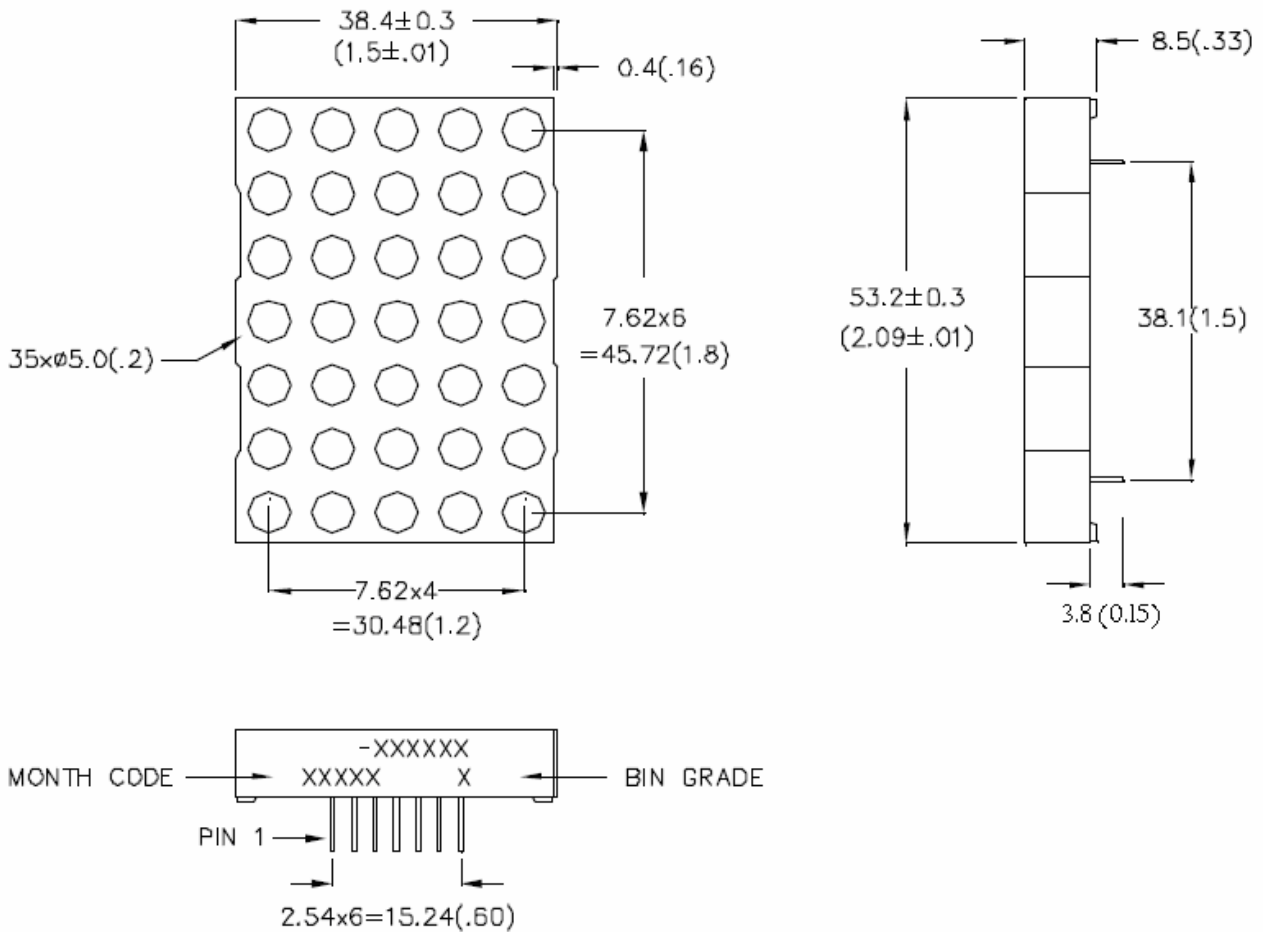
1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury of the user.

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.

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Features:

- 53.20mm (2.0") Matrix Height
- 5x7 Array with X-Y select
- Matrix orientation of Anode Column and Cathode Row
- Stackable Vertical and Horizontal
- Black Face
- AlGaAs Red 660nm technology



- Note: 1. All dimensions are in millimeters. (inches)
 2. Tolerance is +/- 0.25(0.010") unless otherwise specified
 3. All pins are 0.5mm (0.02") diameter

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Absolute Maximum Rating (T = 25°C)

Description	Parameter	Units
Power Dissipation per Segment	75	mW
Continuous Forward Current	25	mA
Peak Forward Current per Segment (Duty Cycle =1/10, 1KHz)	200	mA
Derating Linearly from 25°C	0.42	mW/°C
Reverse Voltage per Segment	5	V
Operating Temperature range	-25 to +85	°C
Storage Temperature range	-25 to +85	°C
Soldering	260°C for 3 sec	°C

Electro-Optical Characteristics (T = 25°C)

Description	HCD-88442	Test Condition
Luminous Intensity per Dot (mcd) Typ:	5.0	IF = 10mA
Forward Voltage(V): Typ: Max:	1.8 2.5	IF = 10mA
Peak Wavelength (nm)	660	IF = 10mA
Dominant Wavelength (nm)	645	IF = 10mA
Spectral line half width (nm)	20	IF = 10mA
Reverse Breakdown Voltage (V)	5	Ir = 100µA

Tolerance for Luminous Intensity = +/-15%

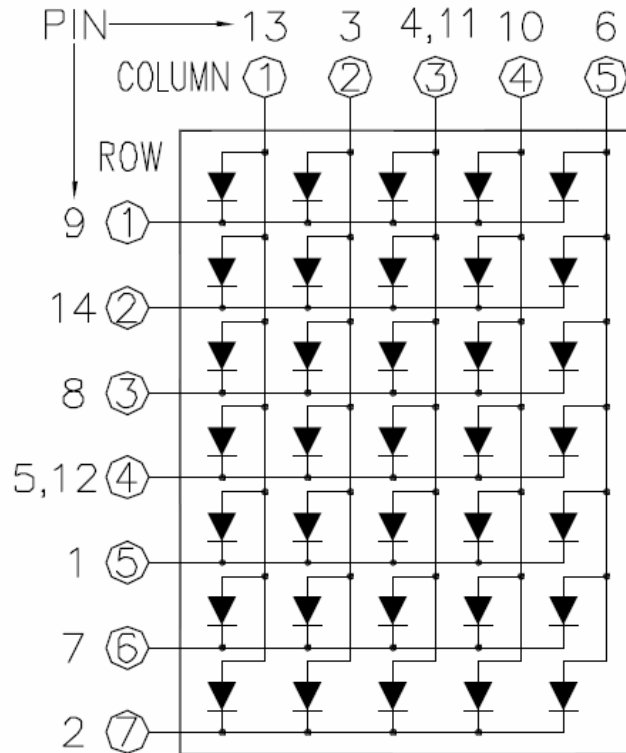
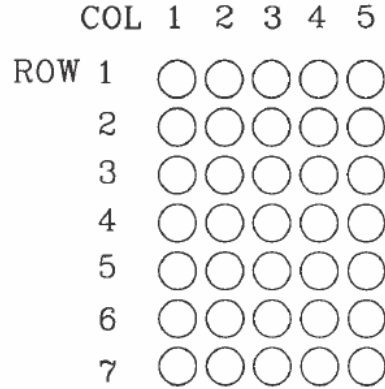
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Brightness Bin:

Bin	Range (mcd)	If=10mA
L	5.54 – 6.6 mcd	
M	6.7 – 8.3 mcd	

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Pin Configuration:



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Pin-out Table

Pin Number	HCD-88442
Pin 1	Cathode Row 5
Pin 2	Cathode Row 7
Pin 3	Anode Column 2
Pin 4	Anode Column 3
Pin 5	Cathode Row 4
Pin 6	Anode Column 5
Pin 7	Cathode Row 6
Pin 8	Cathode Row 3
Pin 9	Cathode Row 1
Pin 10	Anode Column 4
Pin 11	Anode Column 3
Pin 12	Cathode Row 4
Pin 13	Anode Column 1
Pin 14	Cathode Row 2

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Characteristic Curves

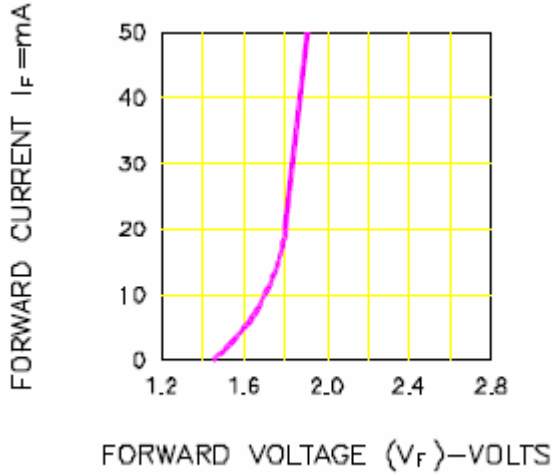


Fig.1 FORWARD CURRENT VS. FORWARD VOLTAGE

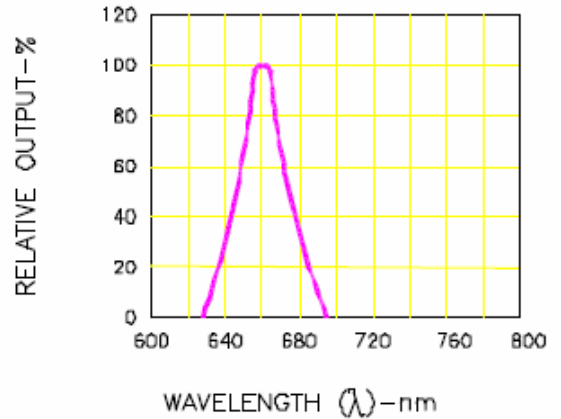


Fig.2 SPECTRAL RESPONSE

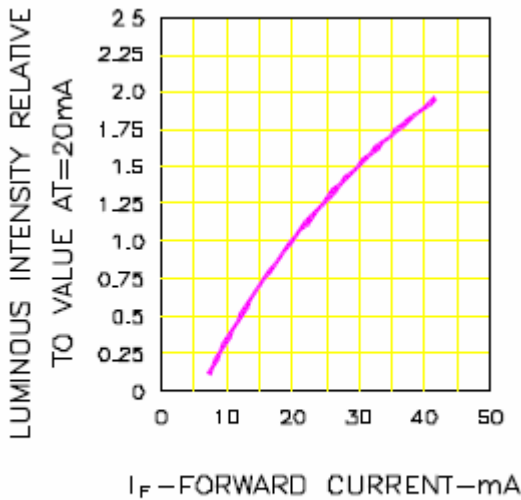


Fig.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

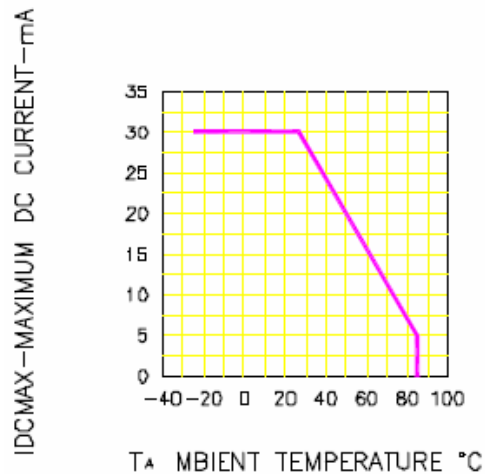


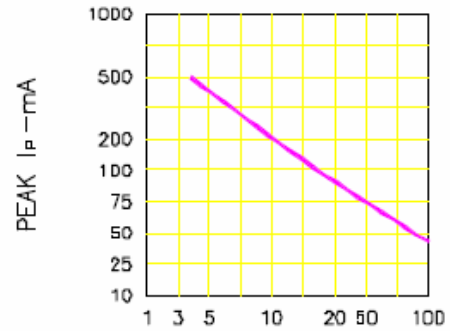
Fig.4 MAXIMUM ALLOWABLE DC CURRENT PER SEGMENT VS. A FUNCTION OF AMBIENT TEMPERATURE

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DUTY CYCLE % PER SEGMENT
(AVERAGE $I_F = 10\text{mA}$)

Fig.5 LUMINOUS INTENSITY VS. DUTY CYCLE

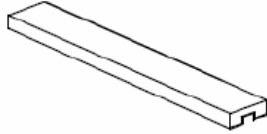


DUTY CYCLE %

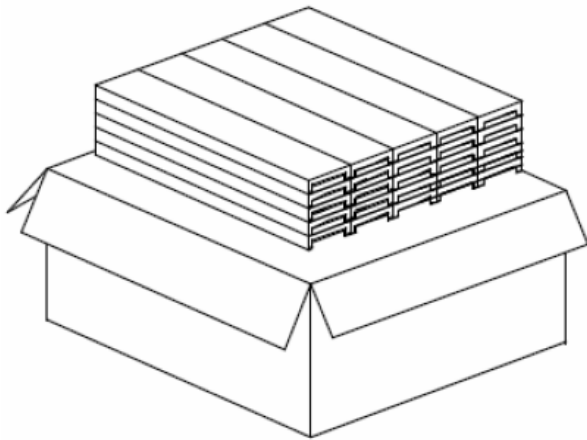
Fig.6 MAX PEAK CURRENT VS. DUTY CYCLE %
(REFRESH RATE $f = 1\text{ KHz}$)

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Packing

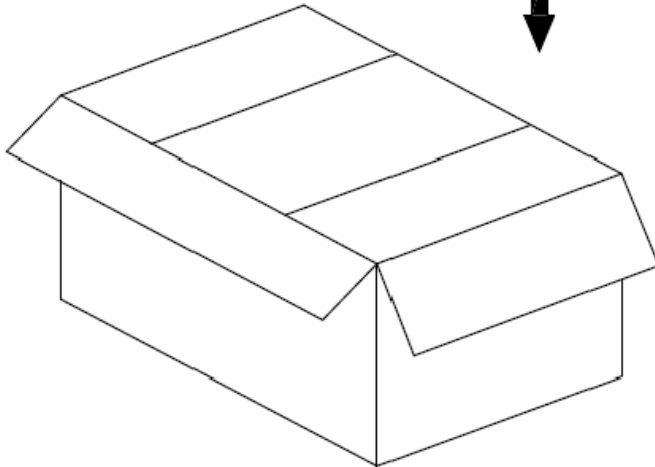


1 TUBE From Box = 20 PCS



1 BOX= 16 TUBE From Box
Q'TY: 320 PCS.

CARTON SIZE:
L529xW255xH139mm



1 CARTON = 3 BOX.
Q'TY: 960 PCS.

CARTON SIZE:
L540xW485xH305.5mm

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