

**Harvatek International Bi-Color Rectangular lamp
HVR-5X3XRA series**

| | | | | |
|--|------------|-------------------|----------------|----------------|
| Official Product | HVR-5X3XRA | Customer Part No. | | Data Sheet No. |
| | ***** | ***** | | HVR-5X3XRA |
| Specifications are subject to change without notice. Data and drawings herein are copyrighted. | | Aug. 01, 2005 | Version of 1.0 | Page 1/8 |

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LIFE SUPPORT POLICY

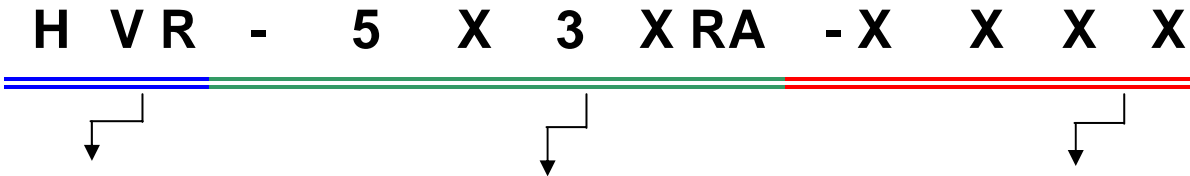
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1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided 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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Orderable Information



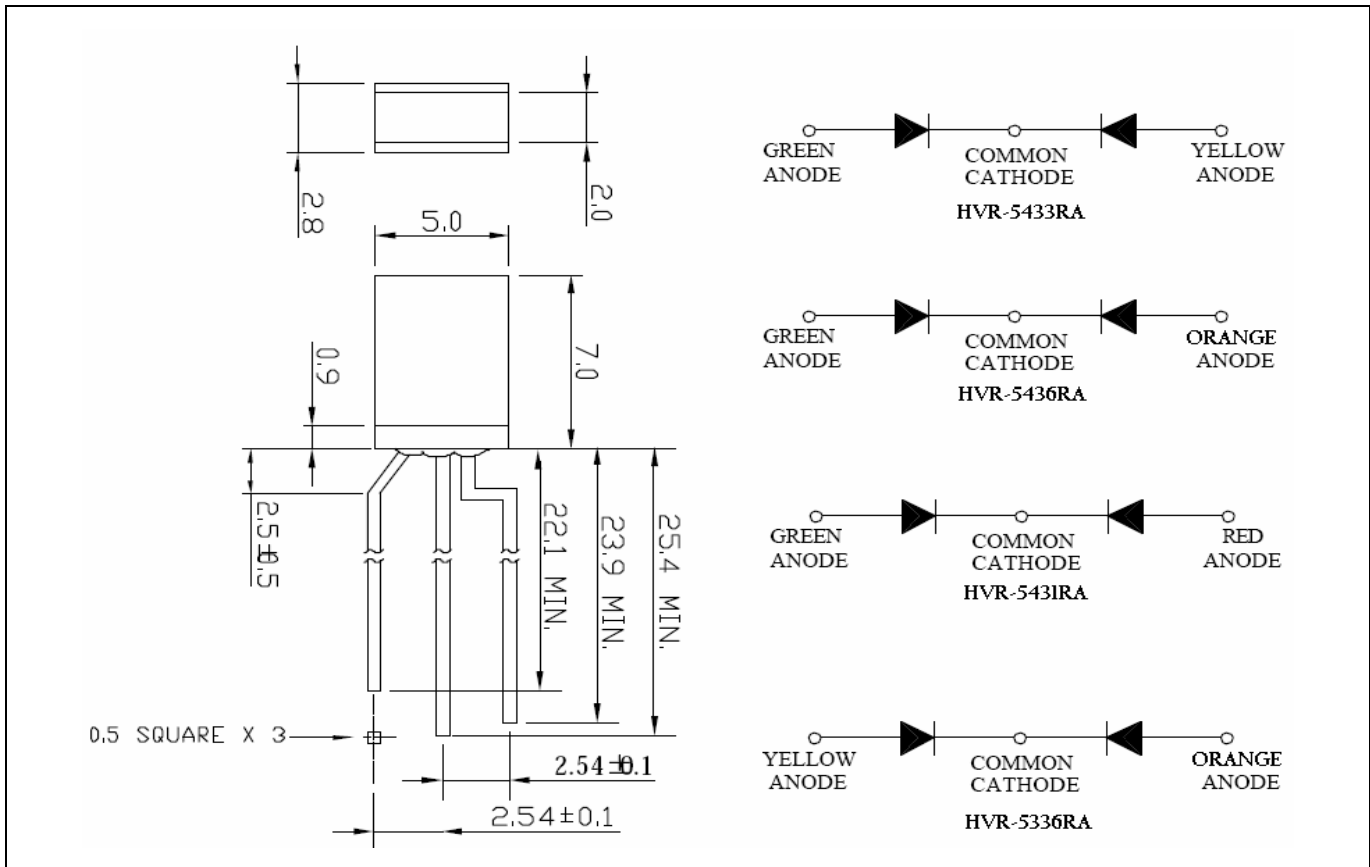
| Series Name | Color Code | Customer specific code |
|---------------------------------------|---|----------------------------|
| HVR= Harvatek Rectangular Lamp | 5433RA = Bi-color GaP Green and GaP Yellow, 5mm lamp with 3-pin 5436RA = Bi-color GaP Green and GaP Orange, with 3-pin 5431RA = Bi-color GaP Green and GaP Red, with 3-pin 5336RA = Bi-color GaP Yellow and GaP Orange, with 3-pin | Customer Code =XXXX |

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Features:

- PCB indication capability
- Easy to assemble
- IC compatible
- Popular 5mm x 7mm rectangular lens
- 3 Leads
- White diffused lens

Package dimension:



Note:

1. All Dimensions are in millimeters (inches)
2. Tolerance is +/- 0.25mm unless otherwise noted

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Absolute maximum Rating (@ 25 degree C)

| Parameter | Symbol | Green, Yellow, and Orange | Red | Unit |
|---|-----------------------|------------------------------|-----|------|
| Power Dissipation | P _d | 78 | 90 | mW |
| Reverse Voltage | V _r | 5 | 5 | V |
| Forward Current | I _F | 30 | 30 | mA |
| Reverse Current | I _r | 50 | 100 | μA |
| Peak Current (1/10 Duty Cycle, 0.1ms pulse width) | I _F (Peak) | 100 | 50 | mA |
| Operating Temperature Range | T _{opr} | -25 to +85 | | ° C |
| Storage Temperature Range | T _{stg} | -40 to +100 | | ° C |
| Lead Soldering Temp | | 260 | | ° C |
| Electrostatic discharge (HBM) | ESD | 5 | | KV |

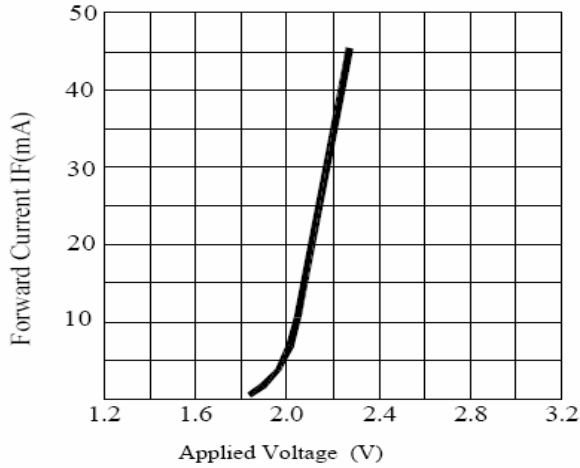
Electrical and Optical Characteristic (@ 25 degree C)

| HVR-5X3XRA series | | | | | |
|-------------------------------|-------------|--------------|-----------|--------------|----------------|
| Parameters | 4 (Green) | 6 (Orange) | 1 (Red) | 3 (Yellow) | Test Condition |
| Luminous Intensity: | | | | | |
| Min (mcd) | 4.2 | 4.2 | 0.6 | 3.0 | If=20mA |
| Typ (mcd) | 10.0 | 8.0 | 1.5 | 6.5 | If=20mA |
| Forward voltage (Vf) | | | | | |
| Typ | 2.1 | 2.1 | 2.1 | 2.1 | If=20mA |
| Max | 2.6 | 2.6 | 3.0 | 2.6 | If=20mA |
| Peak Wavelength (nm) | 567 | 635 | 700 | 585 | If=20mA |
| Spectral line half width (nm) | 30 | 35 | 100 | 35 | If=20mA |
| Viewing angle(degree) | 85 | 85 | 85 | 85 | If=20mA |

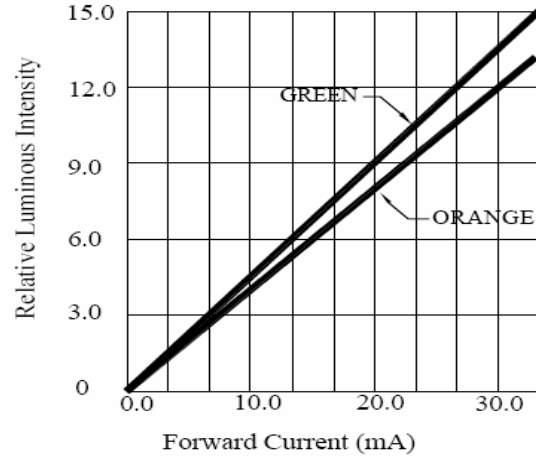
Brightness tolerance = +/- 15%

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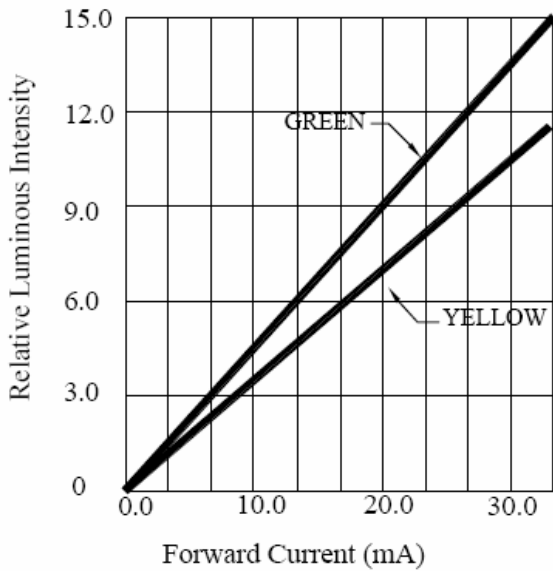
Characteristic Curves



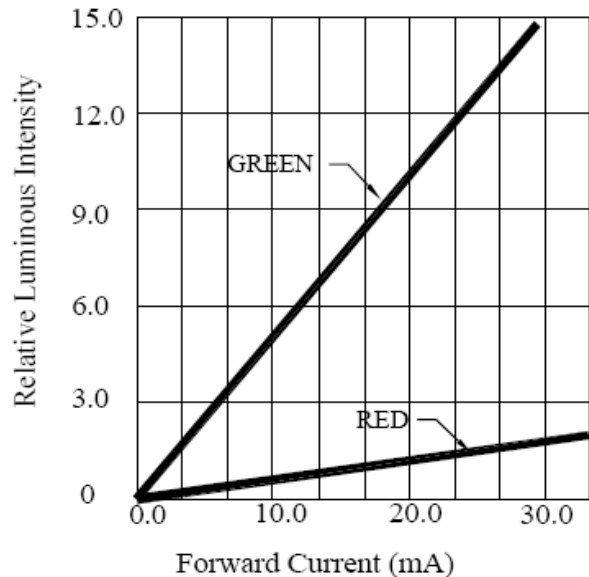
FORWARD CURRENT VS. APPLIED VOLTAGE



FORWARD CURRENT VS. LUMINOUS INTENSITY

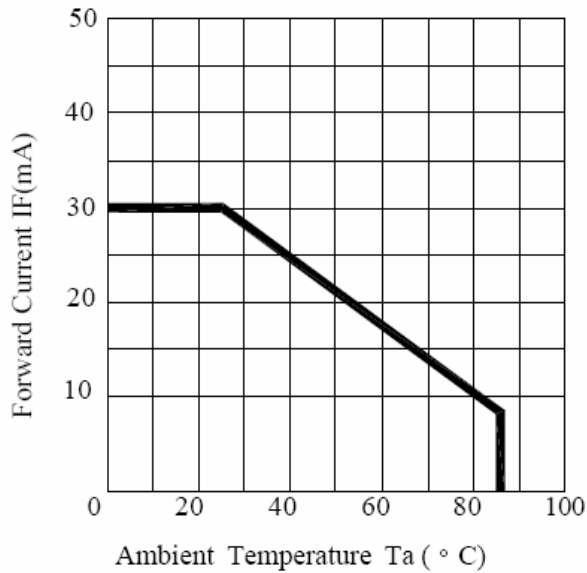


FORWARD CURRENT VS. LUMINOUS INTENSITY

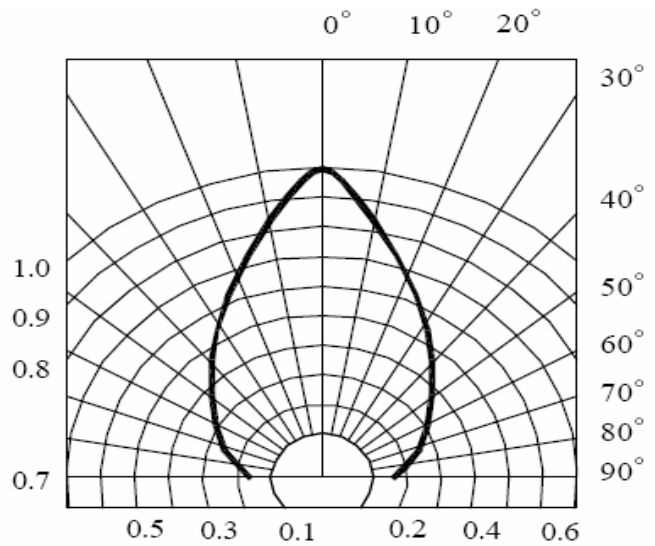


FORWARD CURRENT VS. LUMINOUS INTENSITY

| | | | |
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AMBIENT TEMPERATURE VS. FORWARD CURRENT



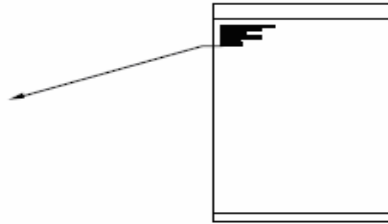
RADIATION DIAGRAM

| | | | |
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ENCASED TYPE

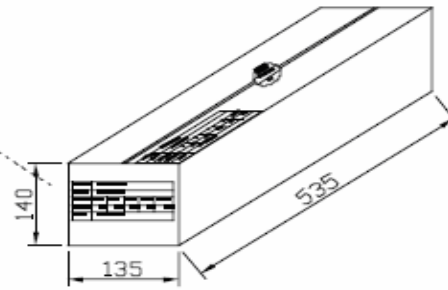
PLASTIC PACKAGE
QUANTITY: 1,000 PCS

| | |
|-----------|----------------|
| Harvatek | |
| PART NO : | HVA-XXXXX-XXXX |
| QTY : | PCS |
| LOT NO : | XXXXXXXXXX |
| DATE : | |
| BIN CODE: | |
| Barcode: | |



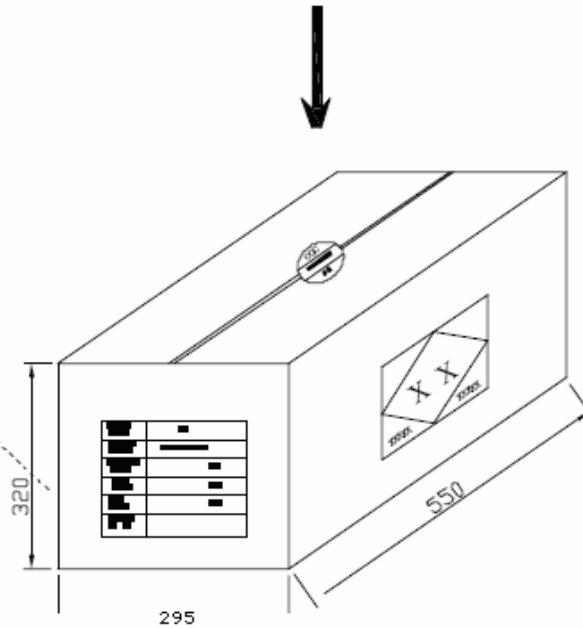
INNER BOX
QUANTITY: 15 PACKETS
TOTAL: 15,000 PCS

| | | | | | |
|----------|-----------------|------|------|------|-------|
| PART NO. | HVA -XXXXX-XXXX | | | | |
| LOT NO. | XXXXXXXXXX | | | | |
| BIN CODE | Xx X | Xx X | Xx X | Xx X | TOTAL |
| QUANTITY | PCS | PCS | PCS | PCS | PCS |
| DATE | XXXX, XX, XX | | | | |



OUTER CARTON
QUANTITY: 4 BOX
TOTAL: 60,000 PCS

| | |
|----------------|----------------|
| C/TNO. 箱號 | XX |
| PART NO. 料號 | HXX-XXXXX-XXXX |
| QUANTITY 數量 | PCS |
| N.W. 淨重 | KGS |
| G.W. 毛重 | KGS |
| REMARK 備註 | |
| BarCode | |



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