

ENHANCED POWER LED

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P2/b

Enhanced Power LED - Revolutionary Light Source Module

FEATURES

Conventional LED design-Simple to use

High Flux and Low Cost-More competitive advantages in the LED industry

Special body frame-Excellent transiting heat from LED chip operating under 150mA.

ADVANTACES

Operating Current : 150mA .

Custom Design Light Sourcing Module for 0.6W-

Excellent Heat Dissipation.

TYPICAL APPLICATIONS

Reading Light / Flashlights / Mini Accent / Track Lighting.

Cove / Under Shelf / Task Lighting.

Orientation / Emergency lights / Traffic Signals.

Bollards / Security / Patio or Garden Lighting..

ABSOLUTE MAXIMUM RATINGS $T_j = 25^{\circ}\text{C}$

| Parameter | EP20XX-150XX | Units |
|---|--------------|-----------------------------|
| DC Forward Current | 150 | mA |
| Pulsed Forward Current | 500 | mA |
| Power Dissipation | 520 | mW |
| Dark Current ($V_R=5V$) | 100 | uA |
| Operating Temperature Range | -20 to 80 | $^{\circ}\text{C}$ |
| Storage Temperature Range | -35 to 85 | $^{\circ}\text{C}$ |
| Soldering Temperature | 245 | $^{\circ}\text{C}$ |
| Thermal Resistance R_{θ} ($^{\circ}\text{C}/\text{W}$) | 85 | $^{\circ}\text{C}/\text{W}$ |
| LED Junction Temperature | 110 | $^{\circ}\text{C}$ |

Operating conditions :

1.Amber operating condition under $f=0.5 \sim 2$ Hz and 1/2 duty factor .

2. 520mw(White) . 6 pins of E-Power LED required soldering on PCB.

(PCB : 25.4 mm * 25.4 mm , 1.6 t / two layers / 2.0 oz .)

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ELECTRICAL CHARACTERISTICS

Tj=25°C IF=150mA

| Device Type | Forward Voltage VF (Volts) @ IF=150mA | | | Reverse Breakdown VR(Volts) @ IR=10uA | | Intensity IV cd | Total Flux Φv (150mA) Typ(lm) | Wavelength λp Typ.(nm) | Δλ 1/2 nm | Viewing Angle 2θ 1/2 (Degrees) Typ. |
|--------------|---|------|-----|---|------|-----------------------|--|------------------------------|-----------------|---|
| | Min. | Typ. | Max | Min. | Typ. | | | | | |
| EP2012-150R1 | | | | | | 35 | | | | 10° |
| EP2032-150R1 | | | | | | 30 | | | | 10° |
| EP2034-150R1 | 2.0 | 2.4 | 2.8 | 5 | 10 | 24 | 3 | 620 | 20 | 20° |
| EP2036-150R1 | | | | | | 15 | | Red Orange | | 30° |
| EP204K-150R1 | | | | | | 3 | | | | 100° |
| EP2012-150A1 | | | | | | 35 | | | | 10° |
| EP2032-150A1 | | | | | | 30 | | | | 10° |
| EP2034-150A1 | 2.0 | 2.4 | 2.8 | 5 | 10 | 24 | 3 | 590 | 20 | 20° |
| EP2036-150A1 | | | | | | 15 | | Amber | | 30° |
| EP204K-150A1 | | | | | | 3 | | | | 100° |
| EP2012-150B1 | | | | | | 20 | | | | 10° |
| EP2032-150B1 | | | | | | 15 | | | | 10° |
| EP2034-150B1 | 3.0 | 3.4 | 4.0 | 5 | | 7 | 1.5 | 470 | 20 | 20° |
| EP2036-150B1 | | | | | | 3.5 | | Blue | | 30° |
| EP204K-150B1 | | | | | | 1.5 | | | | 100° |
| EP2012-150C1 | | | | | | 20 | | | | 10° |
| EP2032-150C1 | | | | | | 15 | | | | 10° |
| EP2034-150C1 | 3.0 | 3.4 | 4.0 | 5 | | 7 | 1.5 | 505 | 25 | 20° |
| EP2036-150C1 | | | | | | 3.5 | | Cyan | | 30° |
| EP204K-150C1 | | | | | | 1.5 | | | | 100° |
| EP2012-150G1 | | | | | | 30 | | | | 10° |
| EP2032-150G1 | | | | | | 25 | | | | 10° |
| EP2034-150G1 | 3.0 | 3.4 | 4.0 | 5 | | 15 | 2 | 525 | 30 | 20° |
| EP2036-150G1 | | | | | | 7 | | Green | | 30° |
| EP204K-150G1 | | | | | | 2 | | | | 100° |

This specification is subject to change without notice.

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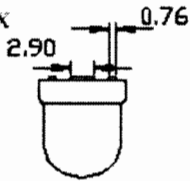
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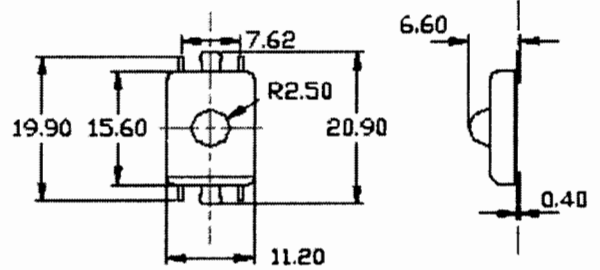
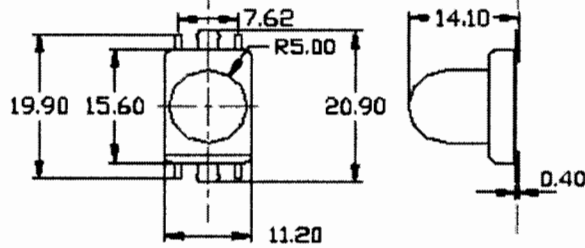
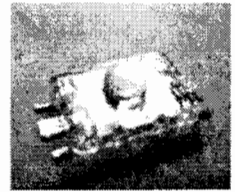
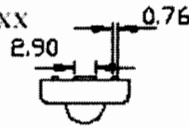
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OUTLINE DRAWINGS

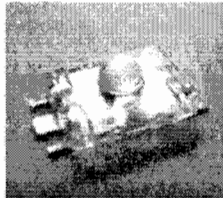
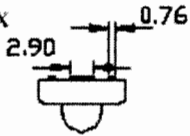
EP2012-150XX



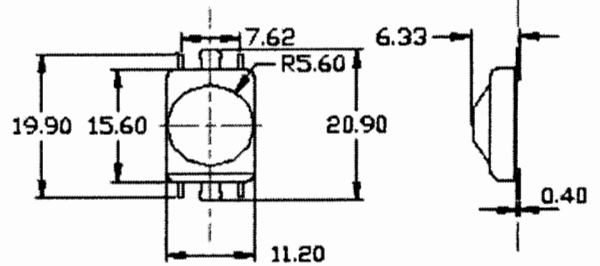
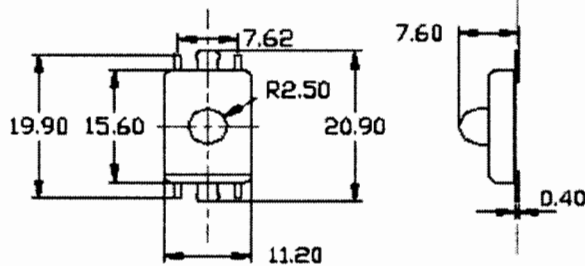
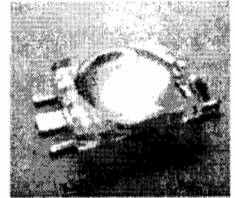
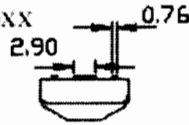
EP2036-150XX



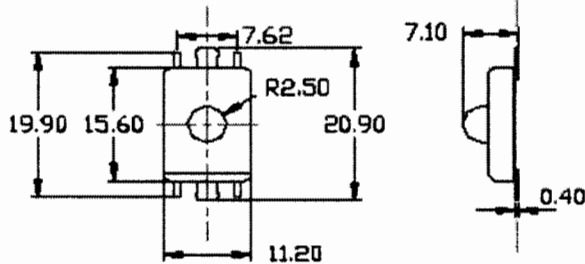
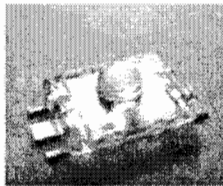
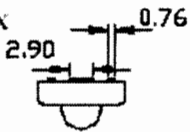
EP2032-150XX



EP204K-150XX



EP2034-150XX



NOTE

1. All dimensions are in millimeters.
2. Tolerance is ± 0.25 mm unless Otherwise specified.
3. This specification is subject to Change without notice.

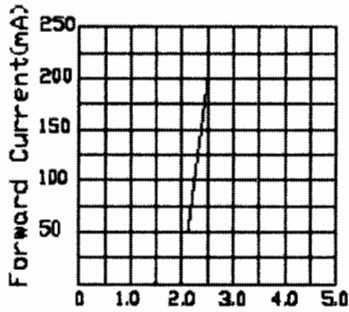
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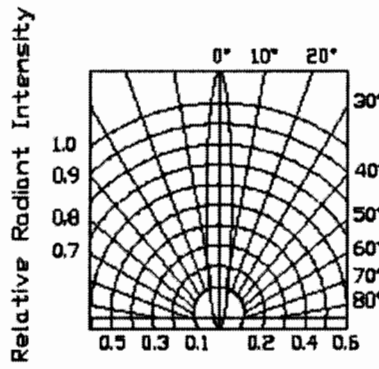
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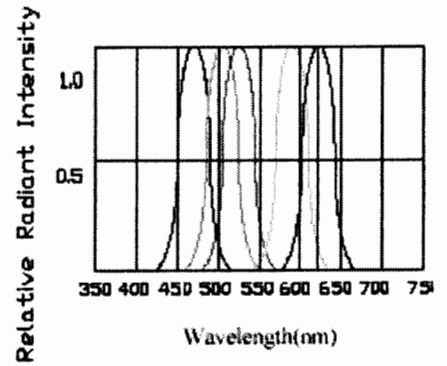
CHARACTERISTICS CURVE



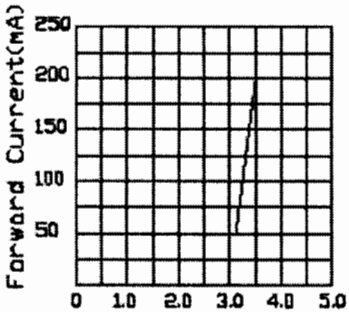
Forward Voltage VF(V)
RED , AMBER



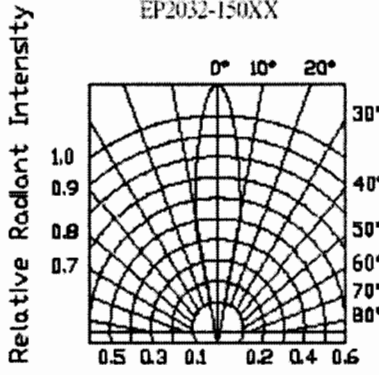
VIEW ANGLE
EP2012-150XX
EP2032-150XX



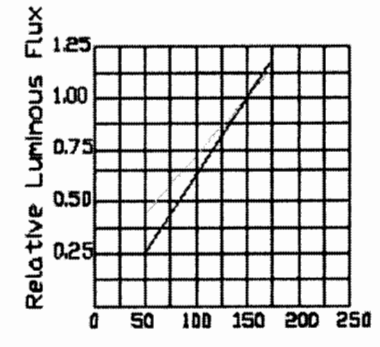
Spectral Distributor
BLUE , CYAN , GREEN , AMBER



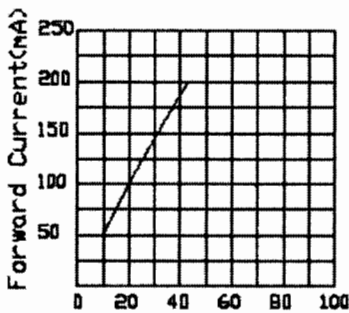
Forward Voltage VF(V)
BLUE , CYAN , GREEN



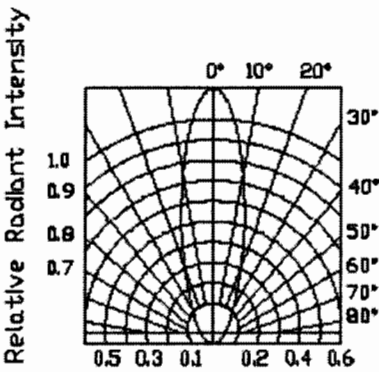
VIEW ANGLE
EP2034-150XX



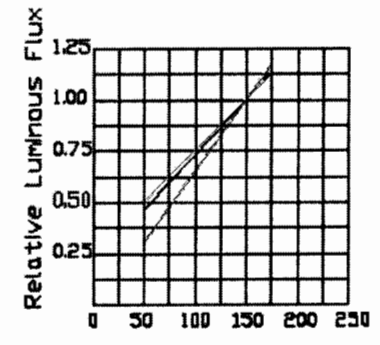
Forward Current(mA)
RED , AMBER



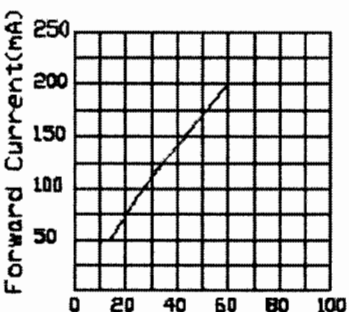
Junction Temperature (°C)
RED , AMBER



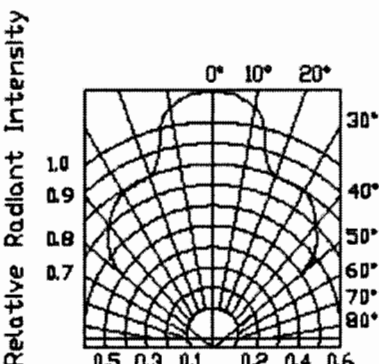
VIEW ANGLE
EP2036-150XX



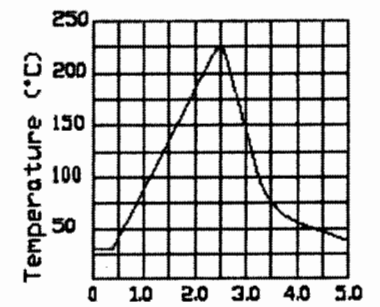
Forward Current(mA)
BLUE , CYAN , GREEN



Junction Temperature (°C)
BLUE , CYAN , GREEN



VIEW ANGLE
EP204K-150XX



TIME(min)
Soldering Temperature

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TEST CIRCUIT

| COLOR | Vf (min) | R(100mA) | R(150mA) |
|-------|----------|----------|----------|
| R | 2V | 30 | 20 |
| A | 2V | 30 | 20 |
| B | 3.5V | 15 | 10 |
| C | 3.5V | 15 | 10 |
| G | 3.5V | 15 | 10 |

PIN CONNECTION

| COLOR | R | G | B | C | A |
|---------|--------|---|---|---|--------|
| ANODE | 6 | 6 | 6 | 6 | 6 |
| CATHODE | 2 5 | 3 | 3 | 3 | 2 5 |

NOTICE:

PACKAGE TYPE : 01 =10mm LENS ; 03=5mm LENS ; 04=11 mm LENS

VIEWING ANGLE : 2×5=10 °

CURRENT : 150mA

λ_p : A1=590nm(Amber) ; G1=525nm(Green) ; R1=620nm(Red) ;

C1=505nm(Cyan) ; B1=470nm(Blue)