

FEATURES

Full color in one single LED

Low thermal resistance

Changeable color temperature

TYPICAL APPLICATIONS

Reading Light / Flashlight / Track Lighting

Under Shelf / Task Lighting

Emergency Lighting / Traffic Signals

Bollards / Security / Garden Lighting

Full Color Sign Boards



ABSOLUTE MAXIMUM RATINGS Tj=25°C

Parameter	EP204K-35B1-3SE	Units
DC Forward Current	50	mA
Pulsed Forward Current	70	mA
Power Dissipation	500	mW
Operating Temperature Range	-20 to 80	°C
Storage Temperature Range	-35 to 85	°C
Soldering Temperature	245	°C
Thermal Resistance RθJ-PCB-AIR(°C/W)	36	°C/W
LED Junction Temperature	110	°C

Operating conditions

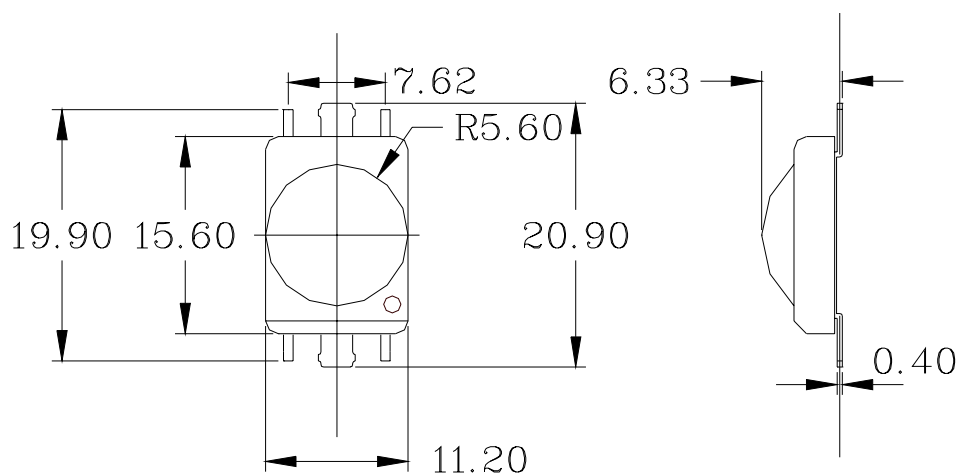
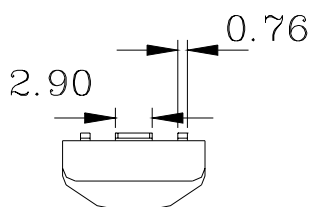
1. RGB operating condition under $f=0.5\sim 2\text{Hz}$ and 1/2 duty cycle
2. 500mW : 6pins of E-Power LED required soldering on PCB.
(PCB : 25.4mm*25.4mm 1.6t / two layers / 2.0 oz)
3. Convective IR Reflow Soldering.
4. Suggested operation current 35mA

ELECTRICAL CHARACTERISTICS

$T_j=25^{\circ}\text{C}$ $I_F=50\text{mA}$

Device Type	Forward Voltage VF (Volts)			Dark Current VR=5V IR=(uA)	Intensity Iv (cd)		Total Flux ϕ_v (lm)	Wavelength λ_D (nm) OR Color Temperature (K)	Viewing Angle 2 θ 1/2 (Degrees)
Unit	Min	Typ	Max	Max	Min	Typ	Typ	Typ	Typ.
BULE	-	10.8	11.4	10	1.5	3.0	2.0	470 Blue	100

OUTLINE DRAWINGS



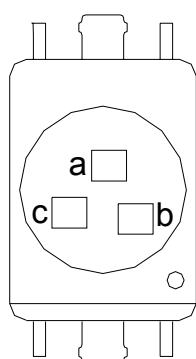
NOTE

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

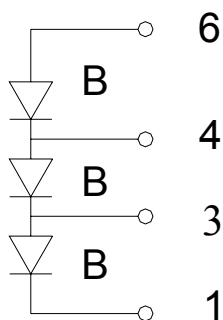
PIN CONNECTION

SE

a+ a-b+

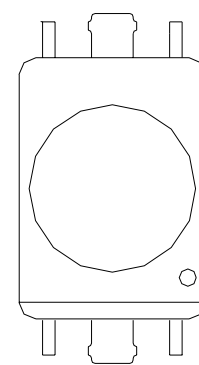


c- c+ b-



EP204K-35B1-3SE
(SERIES ELECTRICS)

6 5 4

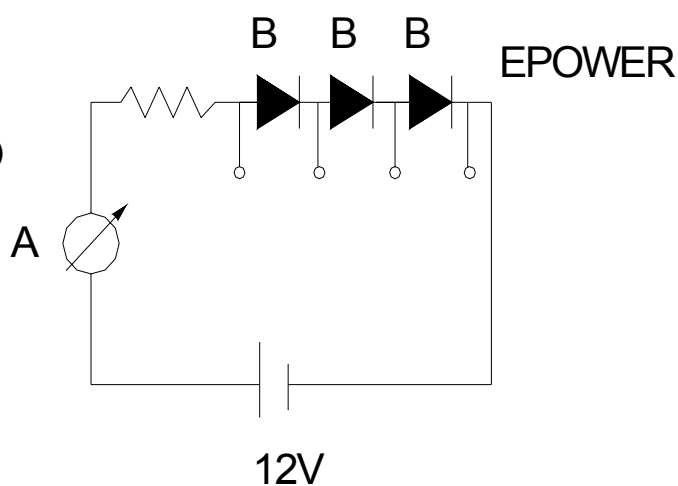


1 2 3

TEST CIRCUIT

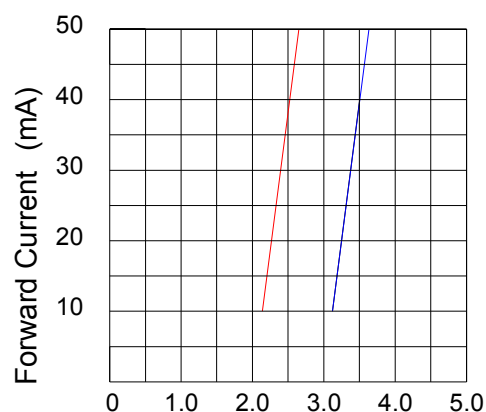
COLOR	Vf (min)	R(35mA)	R(50mA)
BLUE	10.0V	57Ω	40Ω

BLUE 10.0V 57Ω 40Ω

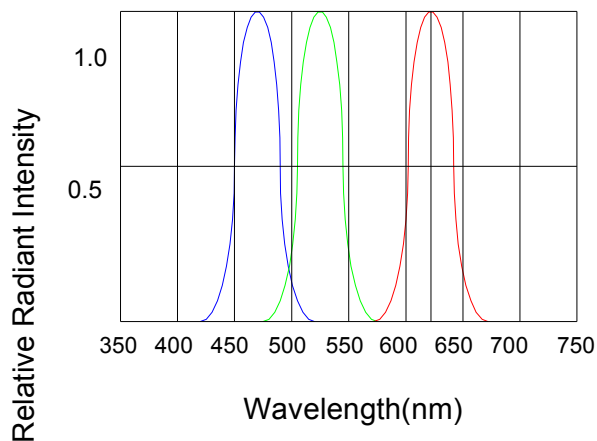


CHARACTERISTICS CURVE

Ta=25°C

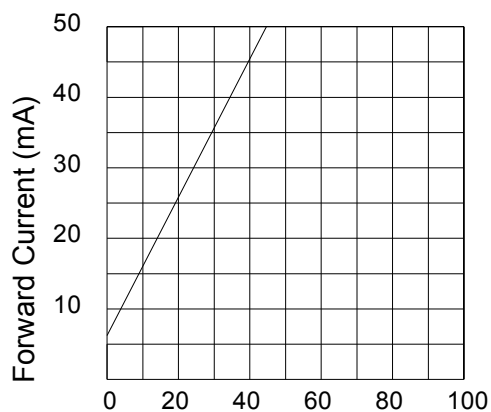


Forward Voltage VF(V)
RED , GREEN, BLUE

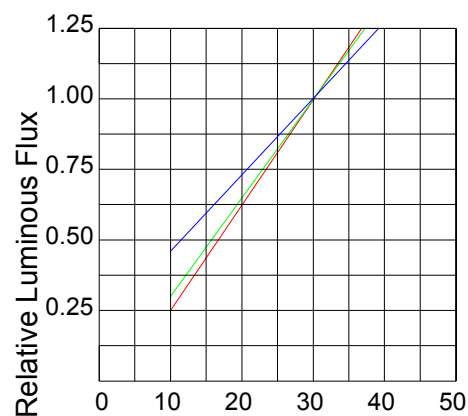


Wavelength(nm)

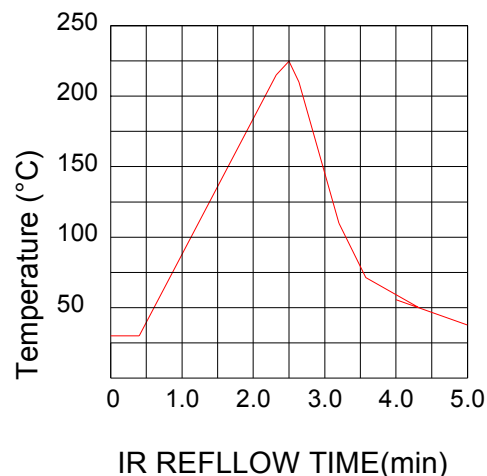
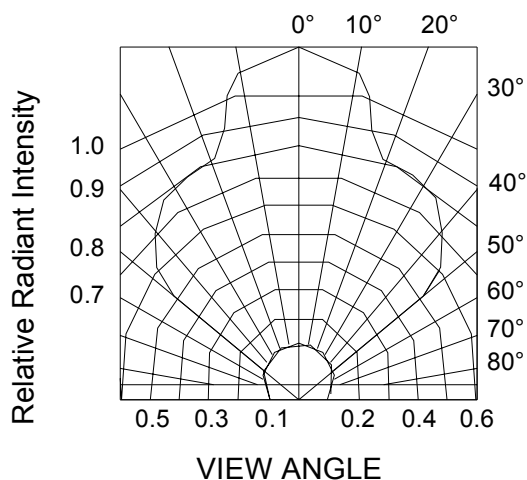
Spectral Distribution
RED, GREEN, BLUE



Junction Temperature (°C)

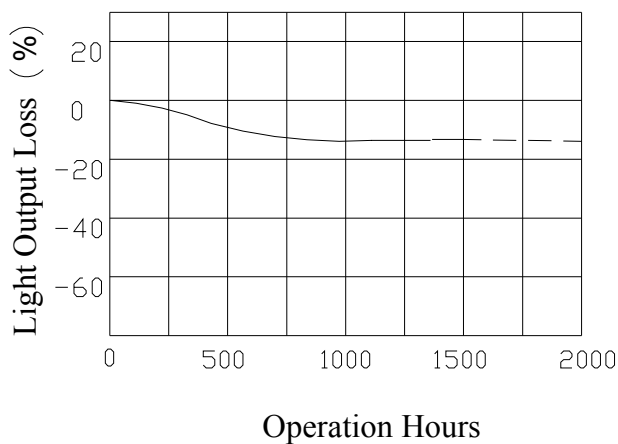


Forward Current(mA)
RED , GREEN, BLUE



Operation Life

Tj=25°C IF=35mA



PART NO. SYSTEM OF E-Power LED

EP 2 01 2-35 B1-3SE

1---2-3-4-5-----6-----7

1.E -Power LED

2.YEAR 2002

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

4.VIEWING ANGLE:2*5=10°

5.CURRENT:35mA

6.λD: B1=470nm(Blue)

7.SE (SERIES ELECTRICS)