

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 $T_j=25^{\circ}\text{C}$

Parameter	EP204K-35G1B1R1-SE	Units
DC Forward Current	50	mA
Pulsed Forward Current	70	mA
Power Dissipation	360	mW
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 $R_{\theta J-PCB-AIR}(^{\circ}\text{C}/\text{W})$	36	$^{\circ}\text{C}/\text{W}$
LED Junction Temperature	110	$^{\circ}\text{C}$

Operating conditions

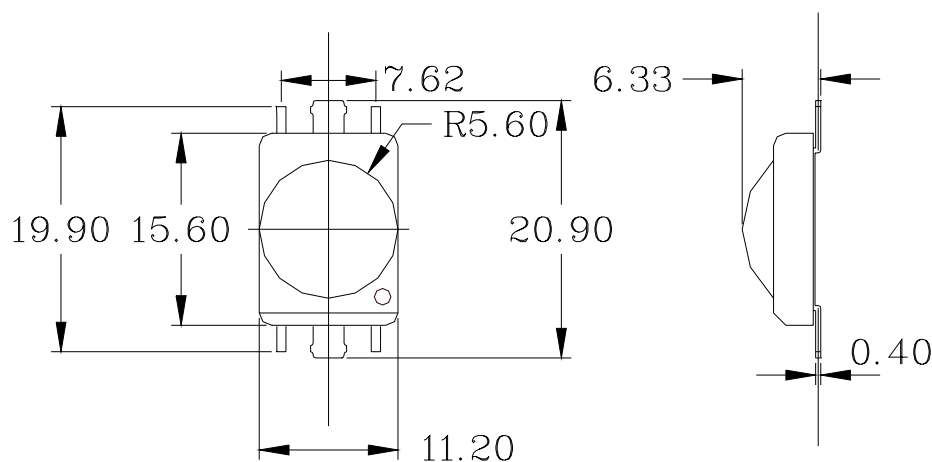
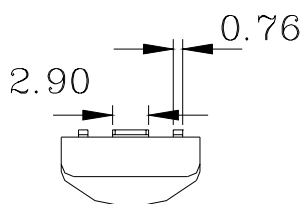
1. RGB operating condition under $f=0.5\sim 2\text{Hz}$ and 1/2 duty cycle
2. 360mW : 6pins of E-Power LED required soldering on PCB.
(PCB : 25.4mm*25.4mm 1.6t / two layers / 2.0 oz)
3. Convective IR Reflow Soldering.
4. Suggested operation current 35mA

ELECTRICAL CHARACTERISTICS

Tj=25°C IF=50mA

Device Type	Forward Voltage VF (Volts)	Dark Current VR=5V IR=(uA)	Intensity Iv (cd)	Total Flux φv (lm)	Wavelength λD (nm) OR Color Temperature (K)	Viewing Angle 2θ1/2 (Degrees)
Unit	Min	Typ	Max	Min	Typ	Typ.
RED	-	2.0	2.6	10	0.3 0.5	-
					620 Red Orange	-
GREEN	-	3.6	4.0	10	0.8 1.6	-
					525 Green	-
BULE	-	3.6	4.0	10	0.3 0.5	-
					470 Blue	-
RGB	-	9.2	10.6	-	2 4 4	2500~8000 100°

OUTLINE DRAWINGS

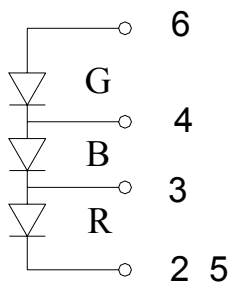
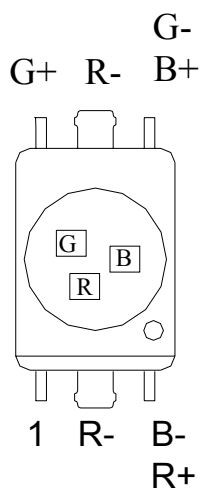


NOTE

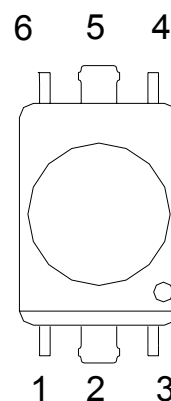
1. All dimensions are in millimeters.
2. Tolerance is 0.25mm unless otherwise specified.
3. This specification is subject to change without notice.

PIN CONNECTION

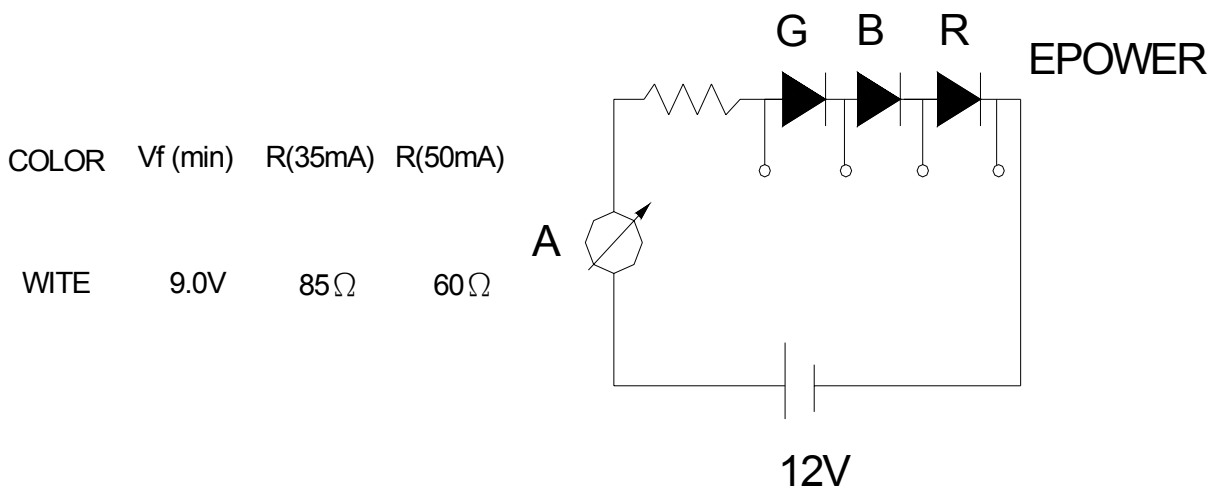
(SERIES ELECTRICS)



EP204K-35G1B1R1-SE
(SERIES ELECTRICS)

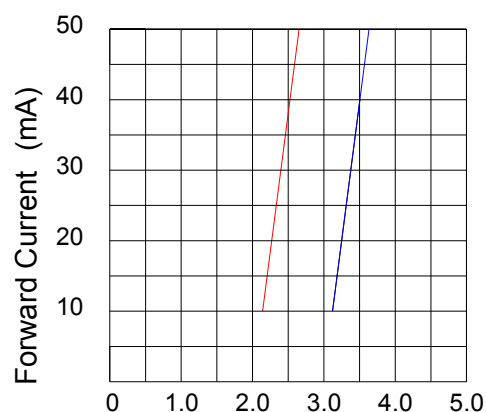


TEST CIRCUIT

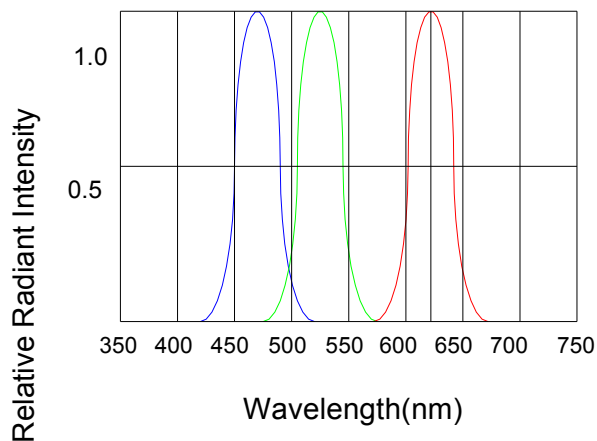


CHARACTERISTICS CURVE

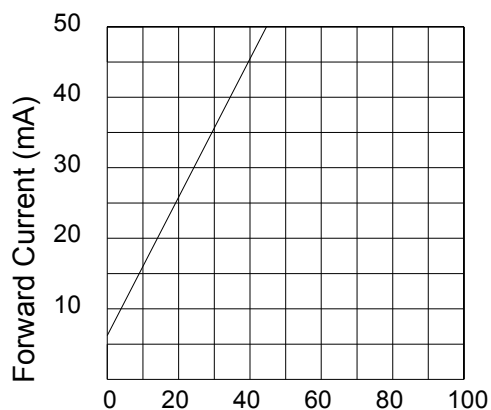
Ta=25°C



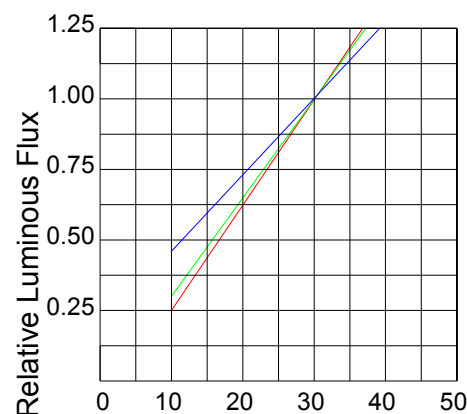
Forward Voltage VF(V)
RED , GREEN, BLUE



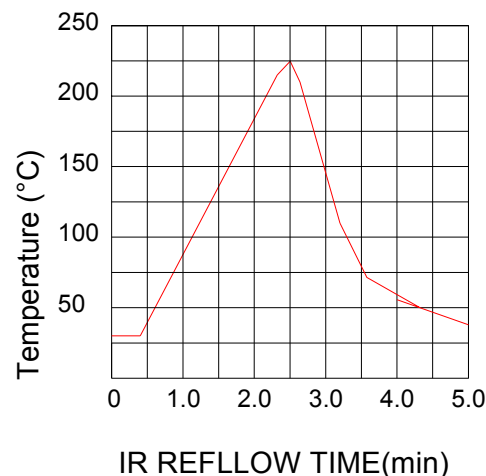
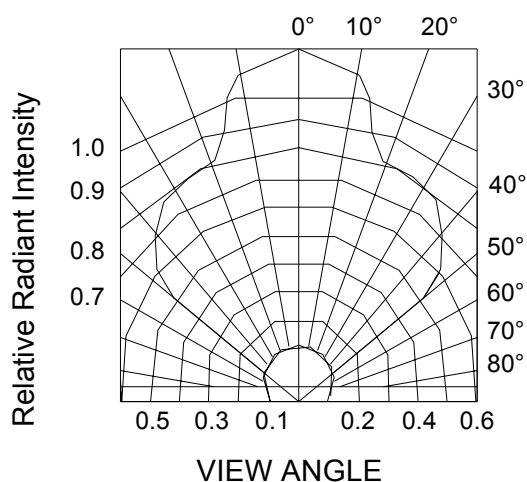
Wavelength(nm)
Spectral Distribution
RED, GREEN, BLUE

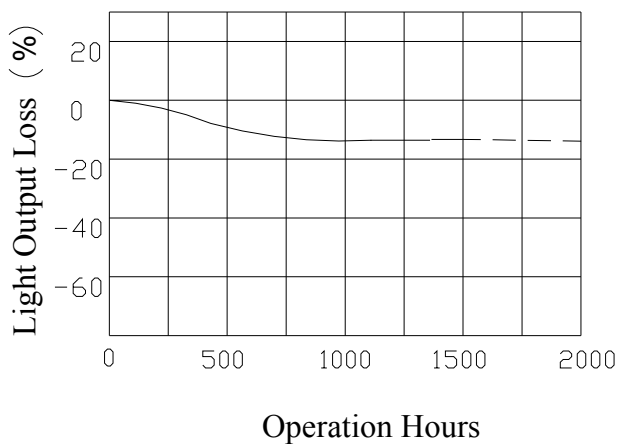


Junction Temperature (°C)



Forward Current(mA)
RED , GREEN, BLUE



Operation LifeT_j=25°C IF=35mA**PART NO. SYSTEM OF E-Power LED**EP 2 04 K-35 G1B1R1-SE1---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*K=100 °

5.CURRENT:35mA

6.λD: R1=620nm(Red) ; G1=525nm(Green) ; B1=470nm(Blue)

7.SE(SERIES ELECTRICS)