



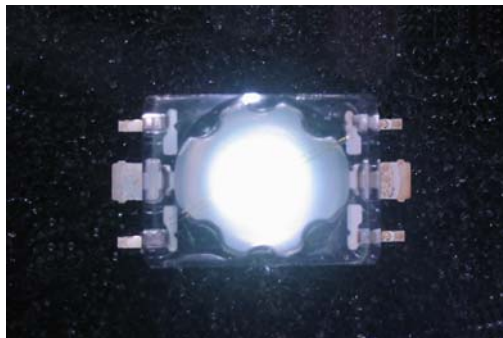
I. C. ENGINEERING LIMITED
工業控制有限公司

DATA SHEET

Enhanced Power LED Revolutionary Light Source Module



Part No.: SB204K150BW1



Part No. : SB2036150BW1



UNIT 23, 12 FLOOR, BLOCK B, HI-TECH IND. CENTER, 491-501 CASTLE PEAK ROAD, TSUEN WAN, N.T. H.K.

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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

Absolute Maximum Ratings $T_J = 25\text{ }^\circ\text{C}$

Parameter	Value	Units
DC Forward Current	150	mA
Pulsed Forward Current	300	mA
Power Dissipation	600	mW
Dark Current (VR=5V)	100	uA
Electostatic Discharge Threshold	12	V
Operating Temperature Range	-40 to 100	$^\circ\text{C}$
Storage Temperature Range	-40 to 100	$^\circ\text{C}$
Soldering Temperature	235	$^\circ\text{C}$
Thermal Resistance	85	$^\circ\text{C} / \text{W}$
LED Junction Temperature	110	$^\circ\text{C}$

Electrical Characteristics $T_J = 25\text{ }^\circ\text{C}$ $I = 150\text{mA}$

Part No	Color	Viewing Angle $2\theta_{1/2}$ (Degrees)
SB204K150BW1	White	100 $^\circ$
SB2036150BW1	White	30 $^\circ$

Operating Conditions

1. Operating condition under $f=0.5\text{Hz}$ to 2Hz and 1/2 duty factor.
2. The LED should be operated at 150mA for ideal performance , but not more than 160mA.
3. The LED must be used in conjunction with heat-sinking devices.Soldering on PCB with mid-connection point while keeping the layout pattern (25.4mm X 25.4mm) is another way to help heat dissipation.
4. The LED products are sensitive to static. Operators must wear static wristband (wireless static wristband is prohibited) and be well grounded while working in the environment with an ionizing air blower . Anti-static requirement should be under ESD 10V.
5. It is recommended to design circuit in series with protected IC to limit current flow. In a parallel connection , each IC should be protected individually.

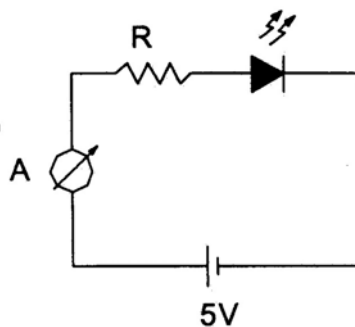
PIN CONNECTION

COLOR	G	B	C	BW
ANODE	6	6	6	6
CATHODE	3	3	3	3



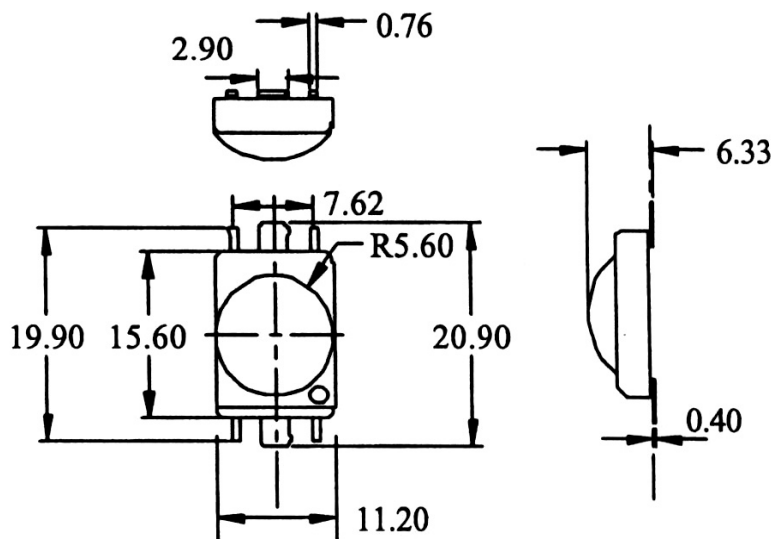
TEST CIRCUIT

COLOR	Vf (min)	R(100mA)	R(150mA)
WHITE	3.5V	150hm	100hm

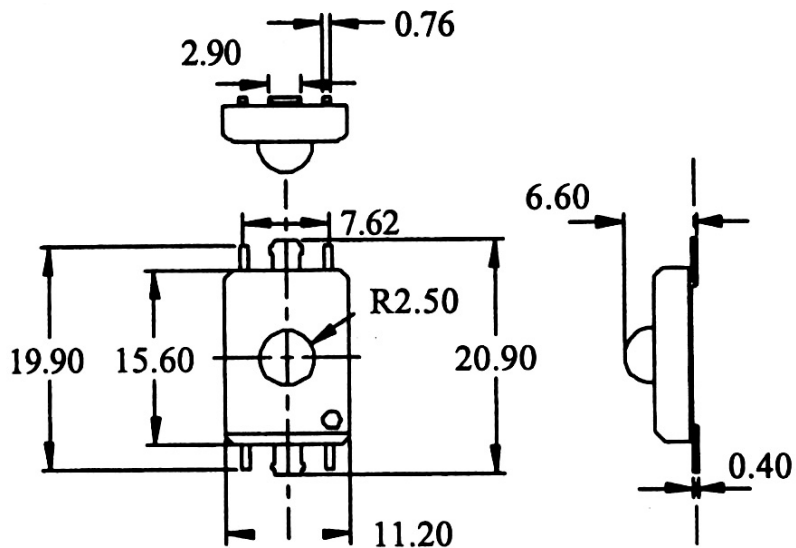


LED Dimensions

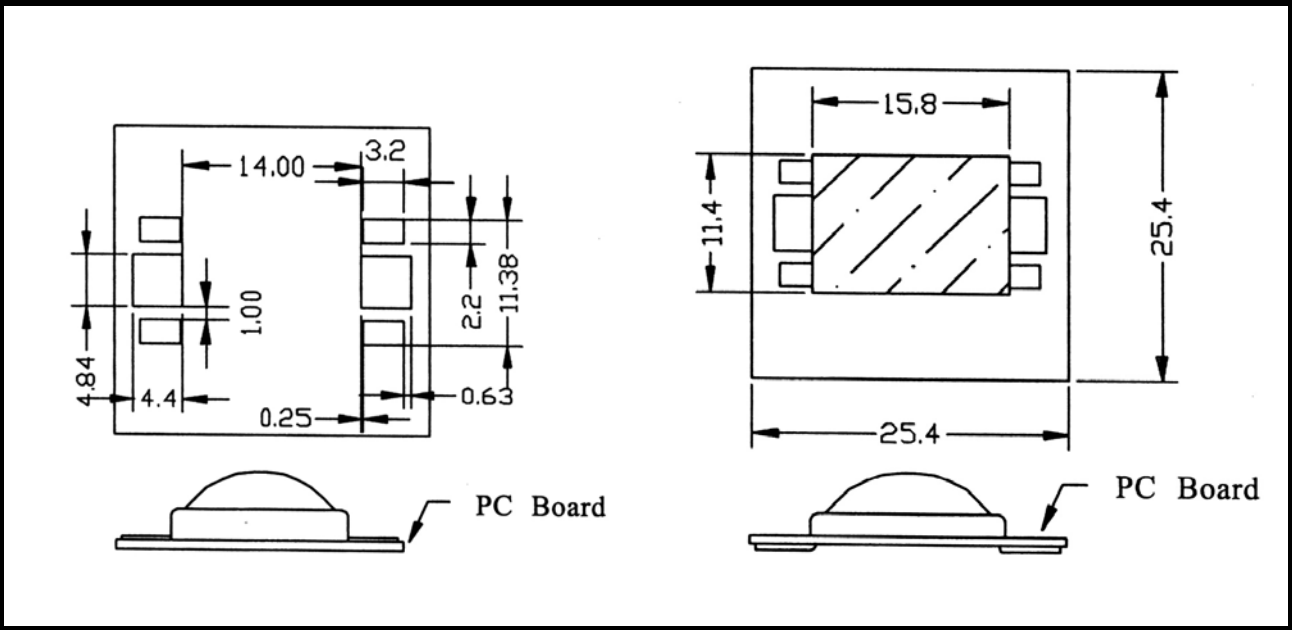
SB204K150BW1



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Recommended Layout Pattern



Accelerate Heat Dissipation

