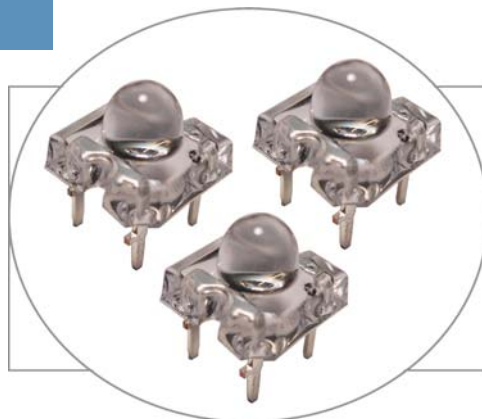


4-Pin Super Flux Red/Blue LED Lamp Orca R Series (4.6mm Dome)

BIVAR

R50RB2-4-0045

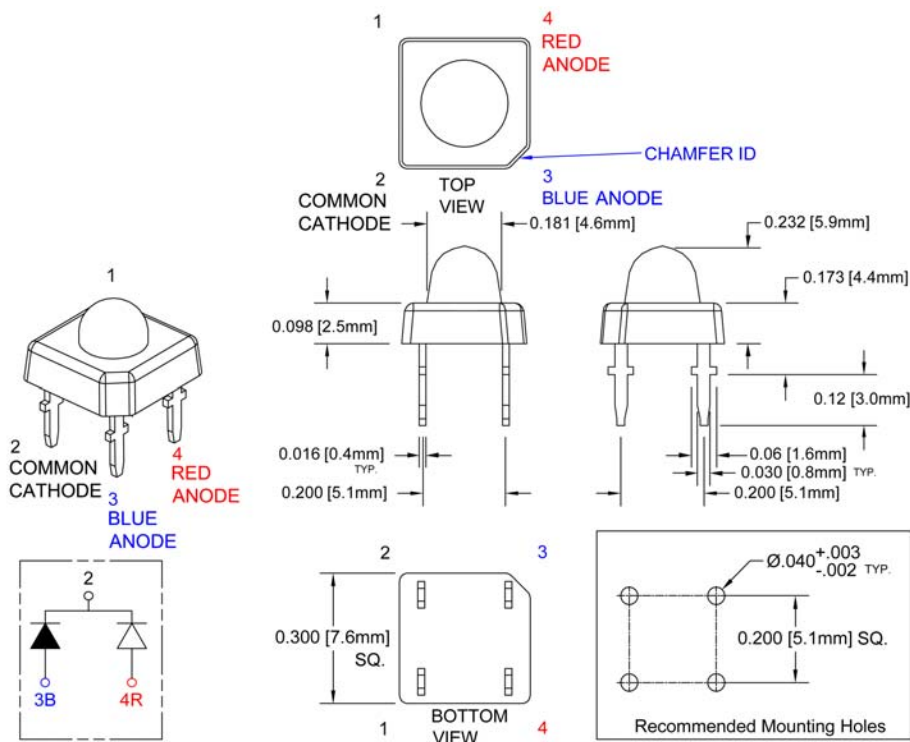
- ◆ RoHS Compliant
- ◆ Low Profile Dome Lens
- ◆ Automatic Insertion Compatible — Tubular Packaging
- ◆ Automatic Placement Compatible
- ◆ High Intensity Output
- ◆ High Power Efficiency



Bivar **R50RB2-4-0045** comes with low profile package design incorporating higher forward current to maximize intensity while minimizing the number of LEDs required to achieve uniform and enhanced light distribution. Low power consumption with quick response time means savings in electricity.

Bivar **R50RB2-4-0045** can be coupled with reflectors or lenses for optimal light distribution needs. Typical applications are automotive exterior lighting, decorative interior or exterior lighting, specialty stage lighting, and electronic signage.

Part Number	Material	Emitted Color	Intensity Typ. mcd	Lens Color	Viewing Angle
R50RB2-4-0045	AlGaInP/GaAs	Red	4000	Water Clear	45°
	GaN/SiC	Blue	400		



Outline Drawings Notes:

1. All dimensions are in inches [millimeters].
2. Standard tolerance: ± 0.010 " unless otherwise noted.
3. Tolerance of overall epoxy outline: ± 0.020 " unless otherwise noted.
4. Epoxy meniscus may extend to 0.060" max.



CAUTION: LOOKING DIRECTLY AT LED WITHOUT SHIELDED EYES MAY CAUSE DAMAGE TO RETINA.

Bivar reserves the right to make changes at any time.

4-Pin Super Flux Red/Blue LED Lamp

R50RB2-4-0045



Absolute Maximum Ratings

T_A = 25°C unless otherwise noted

Power Dissipation	R - 150 mW B - 220 mW
Forward Current (DC)	80 mA
Peak Forward Current ¹	R - 160 mA B - 150 mA
Electrostatic Discharge (Class1)	R - 1000 V B - 1000 V
Reverse Voltage	5 V
Operating Temperature Range	-25 ~ +80°C
Storage Temperature Range	-30 ~ +80°C
Lead Soldering Temperature (3 mm from the base of the epoxy bulb) ²	260°C

Notes: 1. 10% Duty Cycle, Pulse Width ≤ 0.1 msec.

2. Solder time less than 5 seconds at temperature extreme.

Electrical Characteristics

T_A = 25°C & I_F = 50 mA unless otherwise noted

Emitting Color	Forward Voltage (V) ¹			Recommend Forward Current (mA)	Reverse Current (μA) V _R =5V	Dominant Wavelength (nm) ²		Luminous Intensity (mcd) ³		Viewing Angle 2 Θ ½ (deg)
	MIN	TYP	MAX	TYP	MAX	MIN	MAX	MIN	TYP	TYP
Red	2.2	2.6	3.0	50	10	620	635	3000	4000	45
Blue	3.4	3.8	4.4	50	10	460	470	200	400	45

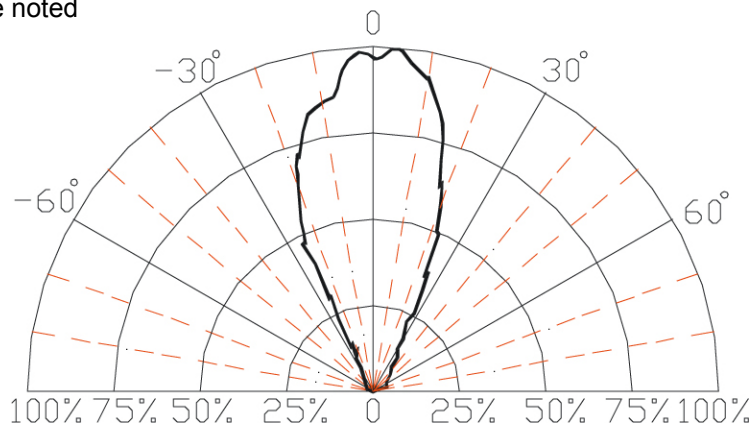
Notes: 1. Tolerance of Forward Voltage : ±0.05V.

2. Tolerance of Dominant Wavelength : ±0.1nm.

3. Tolerance of Luminous Intensity : ±15%.

Directivity Radiation

T_A = 25°C unless otherwise noted



Relative Luminous Intensity vs. Radiation Angle

Bivar reserves the right to make changes at any time.

4-Pin Super Flux Red/Blue LED Lamp R50RB2-4-0045



Typical Electrical / Optical Characteristics Curves

$T_A = 25^\circ\text{C}$ unless otherwise noted

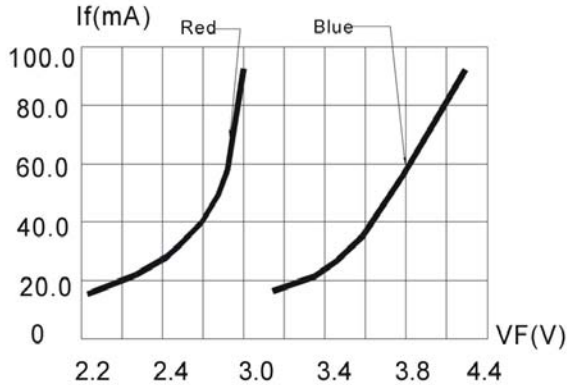


Fig.1 Forward Current vs. Forward Voltage

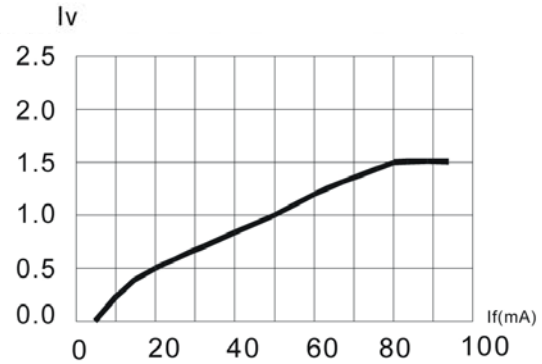


Fig.2 Relative Luminous Intensity vs. Forward Current

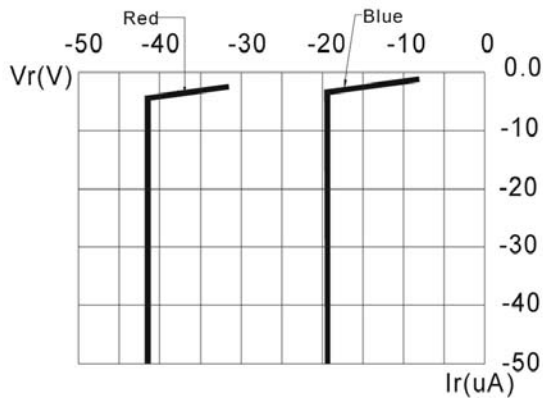


Fig.3 Reverse Current vs. Reverse Voltage

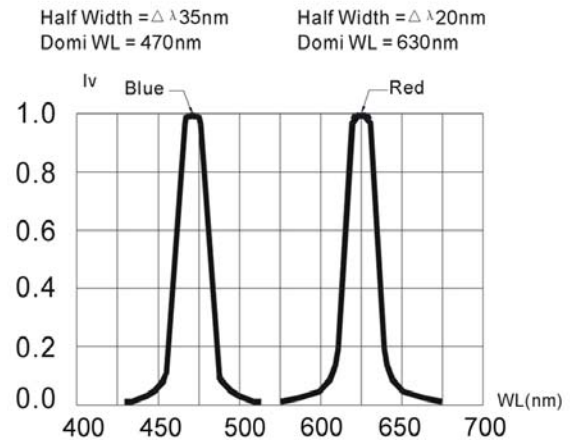


Fig.4 Relative Luminous Intensity vs. Wavelength

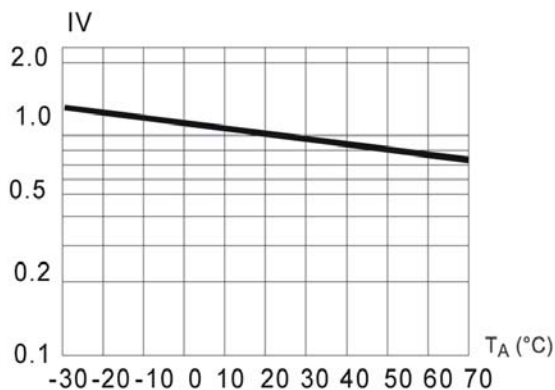


Fig.5 Relative Luminous Intensity vs. Ambient Temperature

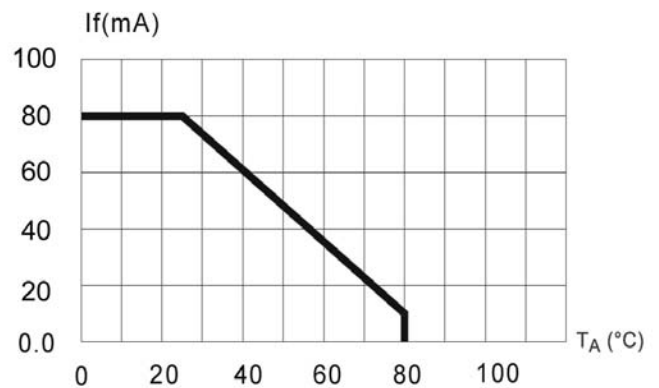


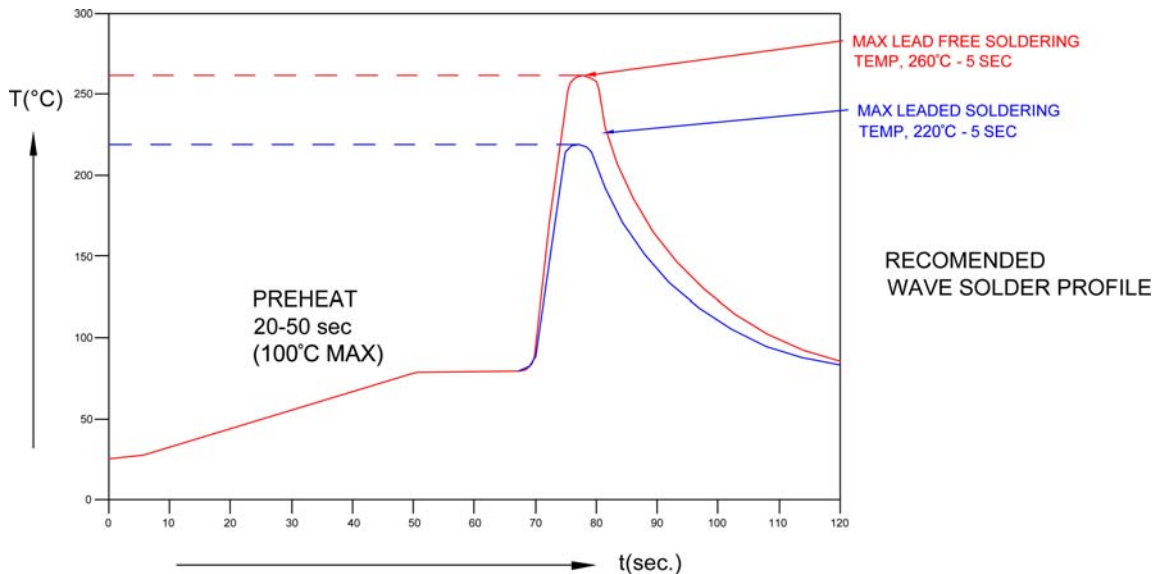
Fig.6 Maximum Forward Current vs. Ambient Temperature

Bivar reserves the right to make changes at any time.

4-Pin Super Flux Red/Blue LED Lamp R50RB2-4-0045



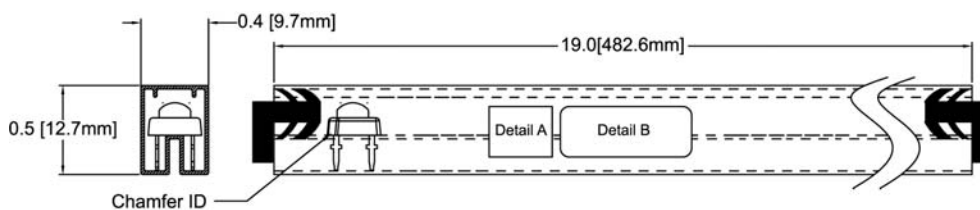
Recommended Soldering Conditions



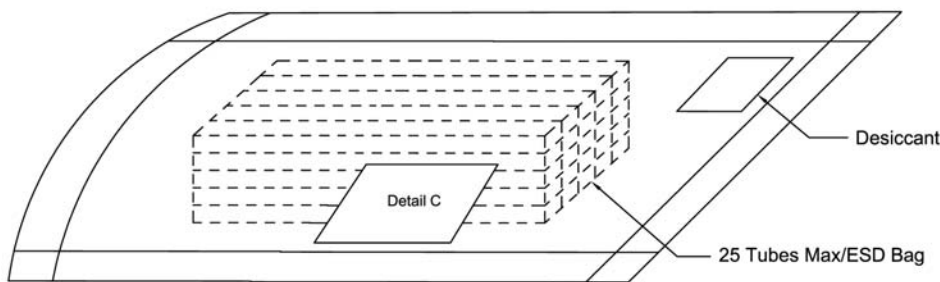
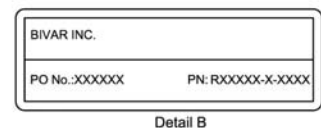
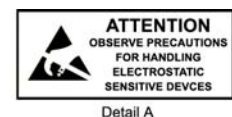
Recommended Lead Free Wave Soldering Profile	
Preheat Temperature: 100°C Max.	Peak Temperature: 260°C Max.
Preheat Time: 20 ~ 50 Seconds	Solder Time Above 217°C: 5 Seconds Max.
Note: Turn off top heater at preheat to prevent the lamp body directly exposed to the heat source.	

Packaging and Labeling Plan

Bivar Orca R series Super Flux LEDs are packaged in tubes, each of which contains 60 LEDs; and each tube contains a rubber stopper at each end.



Note: 60 pcs Max./Antistatic Tube



Note: 1500 pcs Max/ESD bag



Bivar reserves the right to make changes at any time.

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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