PRODUCT SPECIFICATION

Part Number

PB72-LBRG13

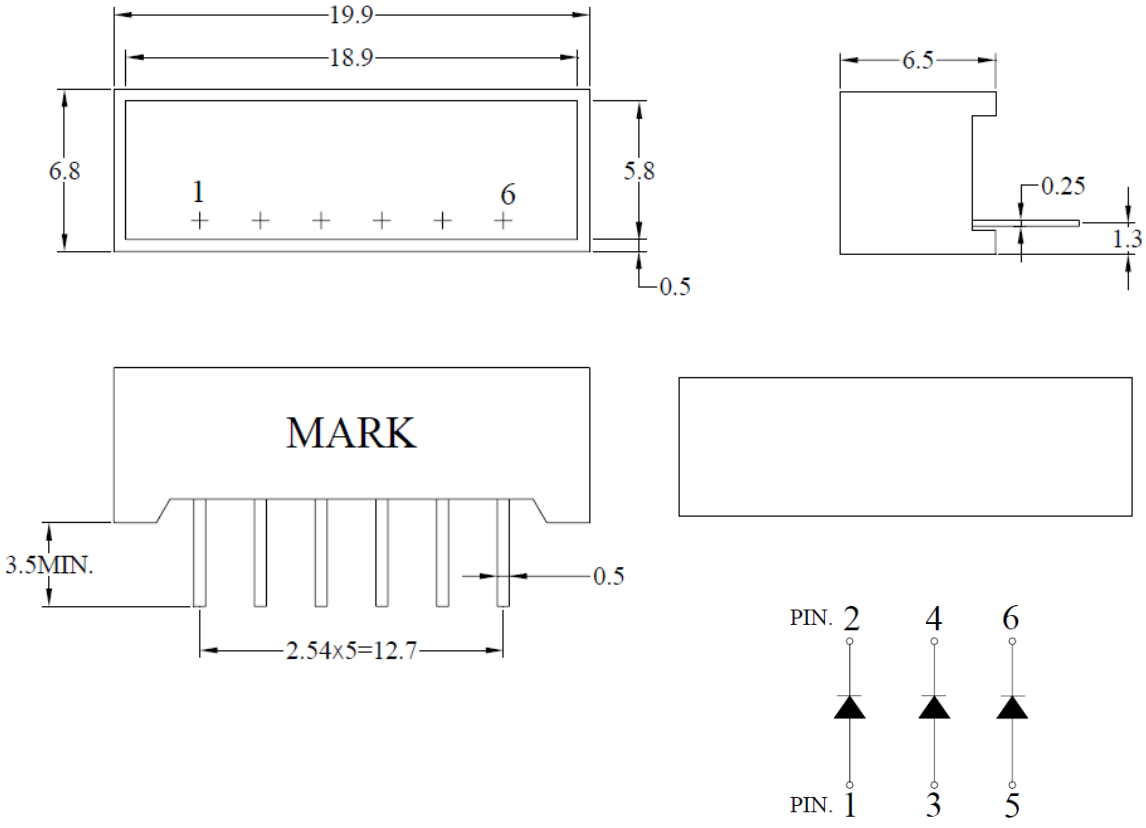
Details

- 0.75” (18.9mm) Rectangular Light Bar LED
- Emitting Color: Green
- GaP/GaP chip material
- White Surface Color

Features

- RoHS Compliant
- Low Power Consumption
- Rugged and Durable
- High Efficiency

Mechanical Dimensions



Notes:
1. All dimensions are in millimeters unless otherwise noted
2. Tolerance is±0.25mm, slope angle of any pin may be ±5.0° Max. unless otherwise noted
3. Specifications subject to change without notice

Device Selection Guide

Part Number	Chip		Face Color	
	Material	Emitting Color	Surface	Segments
PB72-LBRG13	GaP/GaP	Green	White	White

Absolute Maximum Ratings at Ta=25℃

Parameter	Symbol	Rating	Unit
Power Dissipation	P_D	78	mW
Pulse Current (1/10 Duty Cycle, 0.1ms Pulse Width) Per Chip	IFP	80	mA
Reverse Voltage Per Chip	VR	5	V
Forward Current Per Chip	IF	30	mA
Reverse (Leakage) Current Per Chip	Ir	100	μA
Operating Temperature	Topr	-25~+85	℃
Storage Temperature	Tstg	-40~+100	℃
Soldering Temperature (1.6mm from body)	Tsol.	Dip Soldering : 260℃ for 5 sec. Hand Soldering : 350℃ for 3 sec.	

Electrical and Optical Characteristics at Ta=25℃

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv	2.55	6.0	--	mcd	IF=10mA
Forward Voltage	Vf	2.1	2.6	--	V	IF=20mA
Peak Wavelength	λp	--	567	--	nm	IF=20mA
Dominant Wavelength	λd	--	572	--	nm	IF=20mA
Reverse Current Per Chip (Leakage Current Per Chip)	Ir	--	--	100	μA	Vr=5V
Spectrum Line Halfwidth	Δλ	--	25	--	nm	IF=20mA
Response Time	T	--	250	--	ns	--

Typical Electrical / Optical Characteristic Curves

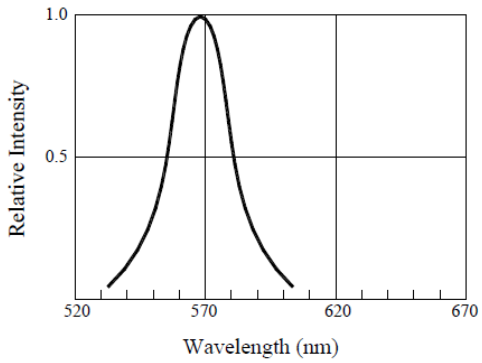


Fig.1 RELATIVE INTENSITY VS. WAVELENGTH

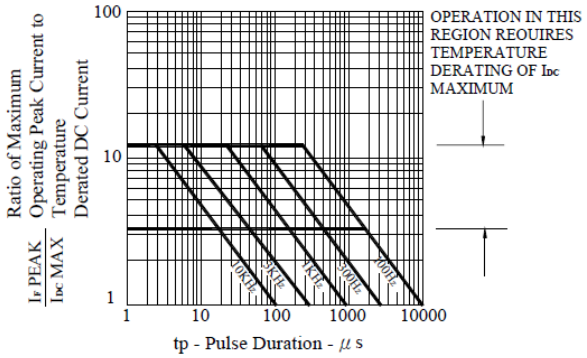


Fig.2 MAXIMUM TOLERABLE PEAK CURRENT VS. PULSE DURATION

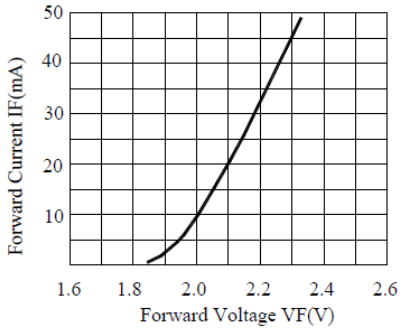


Fig .3 FORWARD CURRENT VS. FORWARD VOLTAGE PER CHIP

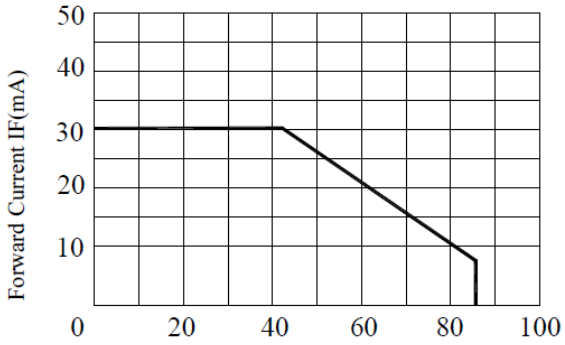


Fig.4 FORWARD CURRENT VS. DERATING CURVE

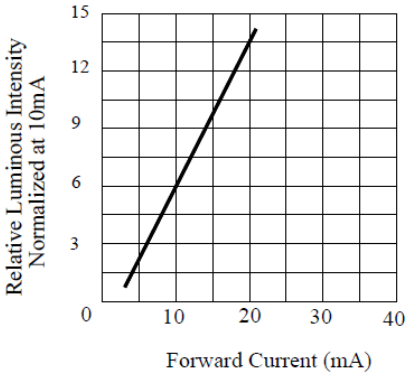


Fig.5 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

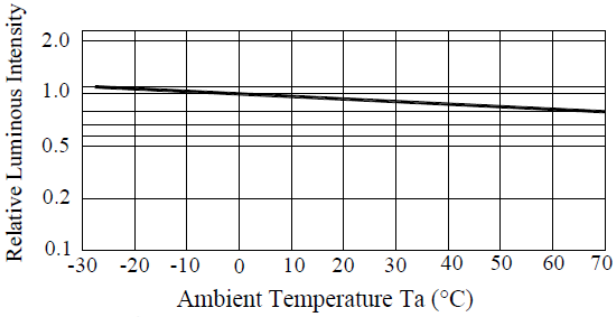


Fig.6 LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

Precautions for Use

PLEASE PAY SPECIAL ATTNTION TO THE NEXT POINT TO INCORPORATE OPTO DEVICE TO HIGH RELIABILITY

1. Do not bend the lead. Bending leads could cause breakage of leads or the degradation of the chip.
   When bending is unavoidable, strictly follow the cautionary instruction below.
   (1)Bend the leads before soldering.
   (2)Bending a lead must be done by fixing a lead tightly and applying no stress on the resin part.
   (3) The lead bending point must be more than 1.6mm away from the edge or the resin part.
   (4)When a pin is tested for its endurance, bending degree should be 45° and repeated no more than two times.

2. Setting a product by using tool such as a holder should be avoided.
   When necessary, no stress should be applied to the resin part and lead to consider dimension tolerance, thermal expansion, thermal contraction of holder, product and circuit board etc.

3. The hole pitch of a circuit board must fit into the lead pitch of products.

4. When soldering, care the followings:
   (1)Do not heat a product under any stress (i.e.: twist) to leads.
   (2)Do not heat (for example, by soldering) a product while out side force is applied the resin part.
   (3 The lead bending point must be more than 1.6mm away from the edge or the resin part.
   (4)Soldering with PC Board should be conducted with following conditions.
      (a) For dip soldering
      Pre-heating : 90℃ Max. for within 60 Sec.
      Soldering Max. : 260±5℃(Solder Temp.) for within 5 Sec.
      (b) Soldering iron : 350℃(Soldering iron tip) for within 3 Sec.

5. Flux could corrode the leads.Use flux that contains as little chlorine as possible (RA, RMA, less than 0.2 wt%) and need not be washed way. When, however, washing is necessary, partially wash around the leads, instead of the entire LED, by the following conditions.
   Cleaning agent : Methyl Alcohol
   Cleaning temp : 45℃Max.
   Cleaning time : 30Sec. Max.

6. Minimum amount of soldering flux should be used. Soldering flux should be applied only to the pin portion.

7. The following may damage products or LED chips: Attachment or contact of residual flux solvent onto the product surface or to LED chips, or invasion of the same into the product.

PB72-LBRG13 Customer Approval Signatures	Approved By	Checked By	Prepared By

Record Of Revisions			
Rev.	**Comments**	**Page**	**Date**
0	Released Spec	--	01/20/2016