

U.S. Pat. No. 4,358,708

High Brightness LED Bi-Pin Lamps 560 series



- High Intensity Light Source
- Wide or Narrow Beam angle
- Integral current limiting resistors for a range of operating points
- Package provides positive seating and spacing of the light source to the PCB surface.

Applications

- Incandescent Lamp Replacement
- High Brightness Backlight
- PCB Mounted Indicator

(1.27) .125 (3.18) .200 MAX. (5.08)		Short Lead Denotes Cathode
1.025* (0.64)	.125 (3.18)	(1.27) 1.025* (0.64) 270 (10.08) 700 MAX. (5.08) 270 (20 MAX. (5.08)
"Terminal cross-section may vary.	l .	*Terminal cross-section may vary.

Maximum Ratings

DC Forward Voltage @ 25° C DC Forward Voltage @ 71° C

Reverse Voltage

Operating Temperature Storage Temperature

Lead Soldering Temperature

120% Specified Operating Voltage 100% Specified Operating Voltage 5.0V

() Metric dimension in mm.

-55° C to +71° C

-55° C to +100° C $230^{\rm o}$ C for 5 sec.

Optical Characteristics

Parameter	560-010X	-020X	-030X	-040X	-050X	-060X
Peak Wavelength (nm)	635	565	585	635	635	585
Spectral line half width (nm)	45	35	35	45 .	35	35
Total Viewing Angle (degrees)	65 28		28			
Typical Luminous Intensity	See figures 1&3					

Operating Characteristics at 25° C

Parameter		560-0X01	-0X02	-0X03	-0X04	-0X05	-0X06	-0X07	-0X08
Operating Voltage (V)		current limiting required	3.6	5	6	10	12	14	24
Forward Current (mA)	typ.	-	18	19	17	17	18	18	15
	max.	35†	25	25	25	20	21	20	16
R(Ω)		_	82	150	220	470	560	649	1,470

[†] Absolute maximum @ 25° C, derate linearly to 20 mA @ 71° C

LED Color & Transmittance

01	Red	Diffused
02	Green	(Wide
03	Yellow	Angle)
04	Red	Non-Diffused*
05	Green	(Narrow
06	Yellow	Angle)

The narrow angle, non-diffused versions are suggested for backlighting applications.

Typical Operating Voltage

01	No integral Resistor _
02	3.6V
03	5.0V
04	6.0V
05	10.0V
06	12.0V
07	14.0V
08	24.0V

Dialight reserves the right to make changes at anytime in order to improve design and to supply the best product possible.

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Lamps with Non-Diffused Lens

Fig. 1

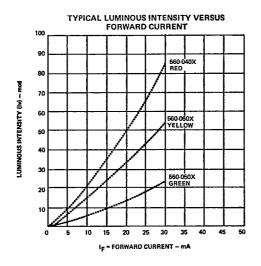
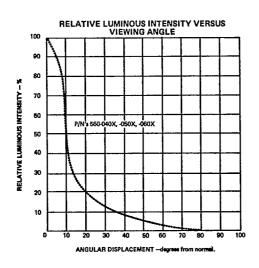


Fig. 2



Lamps with Diffused Lens

Fig. 3

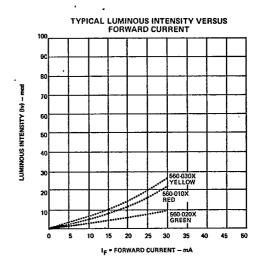
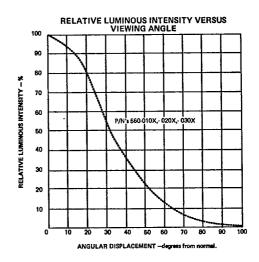


Fig. 4



Mouser Electronics

Authorized Distributor

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Dialight:

560-0301F 560-0201F 560-0101F 560-0305F 560-0306F 560-0302F 560-0402F 560-0308F 560-0102F 560-0204F 560-0507F 560-0304F 560-0506F 560-0206F 560-0205F 560-0602F 560-0207F 560-0103F 560-0503F 560-0208F 560-0401F 560-0501F 560-0608F 560-0407F 560-0104F 560-0307F 560-0606F 560-0508F 560-0403F 560-0406F 560-0601F 560-0105F 560-0108F 560-0203F 560-0408F 560-0202F 560-0106F 560-0107F