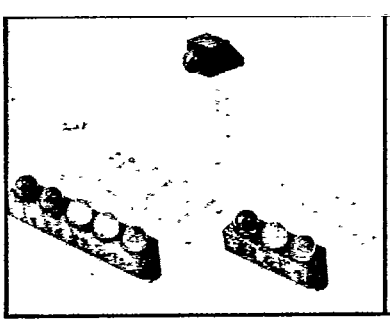
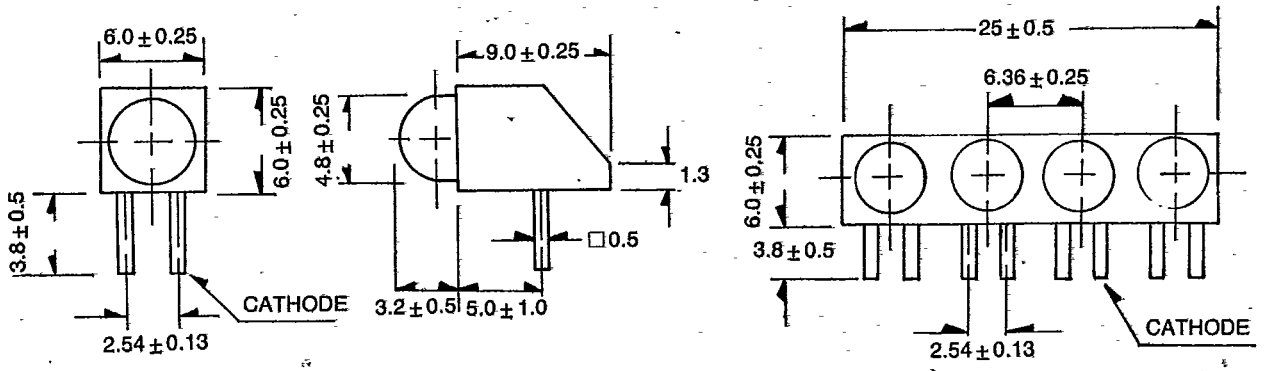


93B SERIES
LED Lamp Arrays

MAIN FEATURES:
- LOW POWER CONSUMPTION.
- HIGH EFFICIENCY AND LOW COST.
- GOOD CONTROL AND FREE COMBINATIONS ON THE COLORS OF LED LAMPS.

■Package Dimensions:



■LED LAMP ARRAYS SELECTION GUIDE

93 B /1H+2Y+2G

- (FROM LEFT TO RIGHT AS DRAWN) NO. OF LAMPS & COLOR COMBINATION
- COLOR OF HOLDER
- MODEL NO.

H: Bright Red
I : Hi-Eff Red
G: Green
Y: Yellow
A: Amber
E: Orange

*COLOR OF HOLDER: B(Black) W(White)

■ABSOLUTE MAXIMUM RATINGS: (Ta=25°C)

Reverse Voltage	:	5 Volt
Reverse Current (Vr=5V)	:	10μA
Operating Temperature Range:		−40°C To 85°C
Storage Temperature Range	:	−40°C To 100°C
Lead Soldering Temperature (1.6mm (1/16 inch) From Body)	:	260°C For 5 Seocnds

NOTE: 1. All dimensions are in millimeters.
2. Lead spacing is measured where the leads emerge from the package.
3. Protruded resin under flange 1.5 mm (0.059") Max.

■ PART SELECTION AND APPLICATION INFORMATION (RATINGS AT 25°C AMBIENT)

Type No.	Chip		Lens Color	Peak Wave Length λp(nm)	Absolute Maximum Ratings				Electro-Optical Characteristic						Remark
	Material	Emitted Color			△λ (nm)	Pd (mw)	If(mA)	Peak If(mA)	Vf(V) Min.	Vf(V) Typ.	Vf(V) Max.	Rec If(mA)	Iv(mcd) Min.	Iv(mcd) Typ.	
EL93B/H	GaP	Bright Red	Red Diffused	697	90	45	15	50	1.7	2.1	2.8	5~10	0.5	1.6	
EL93B/I	GaAsP/GaP	Hi-Eff Red	Red Diffused	635	45	100	30	160	1.7	2.0	2.8	10~20	1.3	5.0	
EL93B/G	GaP	Green	Green Diffused	565	30	100	30	160	1.7	2.1	2.8	10~20	1.3	5.0	
EL93B/Y	GaAsP/GaP	Yellow	Yellow Diffused	585	35	85	20	160	1.7	2.0	2.8	10~20	1.3	5.0	
EL93B/A	GaAsP/GaP	Yellow	Amber Diffused	600	35	85	20	160	1.7	2.0	2.8	10~20	1.3	5.0	
EL93B/E	GaAsP/GaP	Orange	Orange Diffused	635	45	100	30	160	1.7	2.0	2.8	10~20	1.3	5.0	

■ TEST CONDITION FOR EACH PARAMETER:

PARAMETER:	SYMBOL	UNIT	TEST CONDITION
REVERSE VOLTAGE	Vr	VOLT	
REVERSE CURRENT	Ir	μA	Vr=5.0 Volt
FORWARD VOLTAGE	Vf	VOLT	If=20mA
LUMINOUS INTENSITY	Iv	MCD	If=10mA
VIEWING ANGLE	2θ½	DEGREE	If=20mA
SPECTRAL LINE HALF-WIDTH	△λ	nm	
POWER DISSIPATION	Pd	mW	
PEAK FORWARD CURRENT (Duty 1/10 @ 1KHz)	If (Peak)	mA	
RECOMMENDED OPERATING CURRENT	If (Rec)	mA	