Surface Mount Bi-Color Chip LEDs MSL-155XX SERIES

Description

The MSL-155xx , a series of bi-color Chip LED device , is designed in an industry standard package suitable for SMT assembly method . This series contain different combinations of Red & Green chips to provide broad range choices in wavelength and intensity . They are all molded in water clear epoxy package.

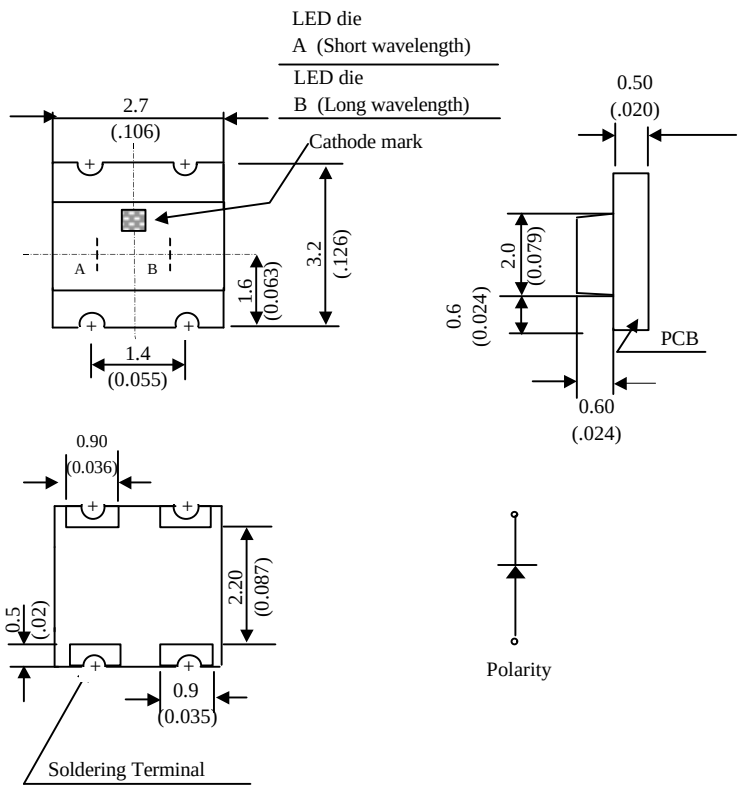
Features

- Small Size
- Industry Standard Footprint
- Compatible with IR Solder process
- Availalble in 8 mm Tape on 7"(178mm) Diameter Reels
- Dual color

Applications

- Push-button backlighting
- LCD backlighting
- Symbol backlighting
- Front panel indicator

Package Dimensions



NOTE:
1. All dimensions are in millimeter (inches)
2. Tolerance is ± 0.1mm (.004") unless otherwise specified.

Absolute Maximum Ratings

@ T_A=25°C

Parameter	Symbol	Maximum Rating	Units
Peak Forward Current	I_{FP}	80	mA
DC Forward Current(1)	I_F	25	mA
Power Dissipation	P_D	65	mW
Reverse Voltage (I_R = 100 μA)	V_R	5	V
Operating Temperature Range	T_{OPR}	-20 to + 80	°C
Storage Temperature Range	T_{STG}	-30 to + 100	°C

Notes:

1. Derate linearly as shown in figure 4 for temperatures above 25°C

Optical-Electrical Characteristics

Part Number MSL-	Color	Luminous Intensity I_V (mcd) @ I_F = 20 mA[1]		Peak Wavelength λ_{peak} (nm)	Forward Voltage V_F (Volts) @ I_F = 20mA		Viewing Angle $2\theta_{1/2}$ Degrees[2]
		Min.	Typ.	Typ.	Typ.	Max.	Typ.
155B0	Orange / Yellow Green	10 / 10	14 / 35	630 / 565	2.1 / 2.2	2.6	130
155B1	High eff Red / Yellow Green	10 / 10	14 / 35	640 / 565	1.9 / 2.2	2.6	130
155B2	Super Red / Yellow Green	30 / 10	45 / 35	660 / 565	1.8 / 2.2	2.2 / 2.6	130
155B5	Orange / Pure Green	4.5 / 2.0	13 / 6	610 / 555	2.2	2.6	130
155B6	AlGaAs Red / Pure Green	30 / 10	45 / 35	660 / 565	1.8/2.2	2.0/2.6	130

Notes:

1.The luminous intensity, IV, is measured at the peak of the spatial radiation pattern which may not be aligned with the mechanical axis of the lamp package.

2. $2\theta_{1/2}$ is the off-axis angle where the luminous intensity is 1/2 of the peak intensity.

Typical Optial - Electrical Characteristic Curves

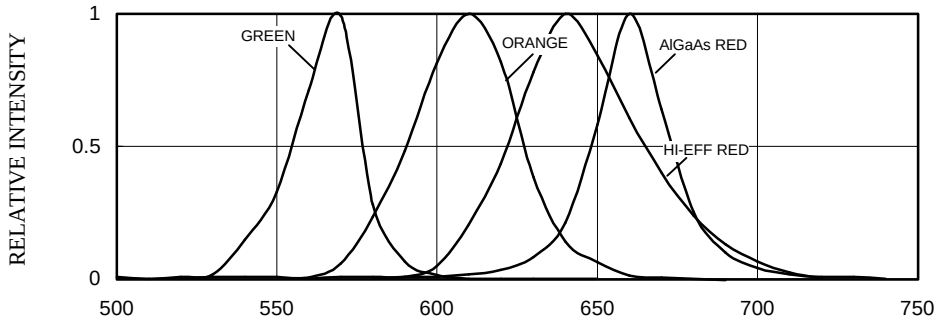
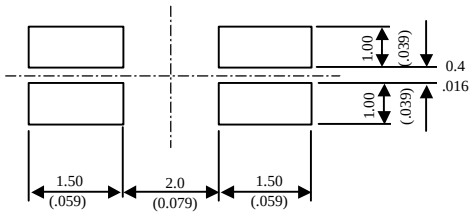
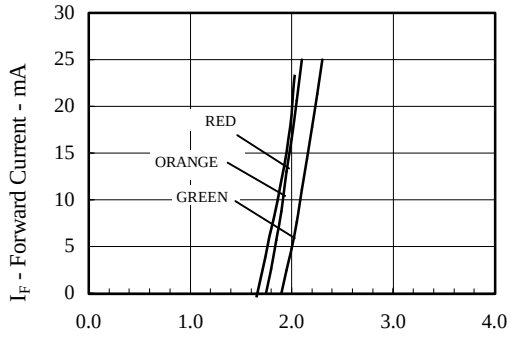


FIG. 1. Relative Intensity vs. Wavelength

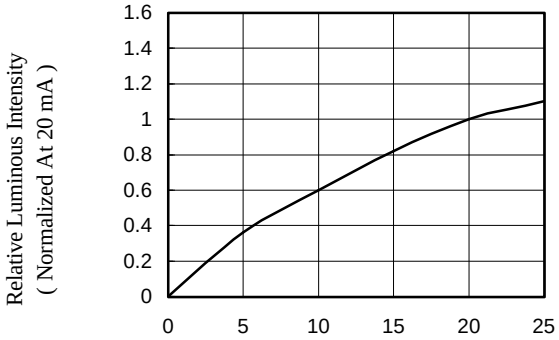
Recommended Solder Patterns



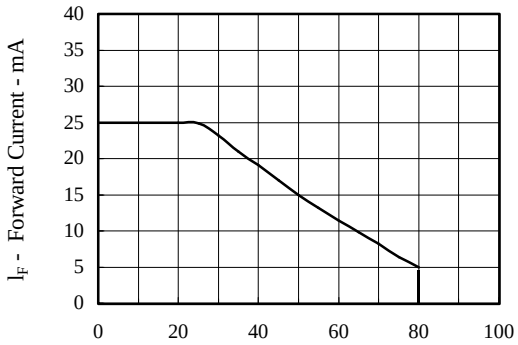
Typical Optical - Electrical Characteristic Curves



V_F - Forward Voltage - V
FIG.2 FORWARD CURRENT
VS. FORWARD VOLTAGE.



I_{DC} - DC Forward Current - mA
FIG. 3 RELATIVE LUMINOUS INTENSITY
VS.DC FORWARD CURRENT.



TA - Ambient Temperature - °C
FIG. 4 MAXIMUM DC CURRENT
VS. AMBIENT TEMPERATURE

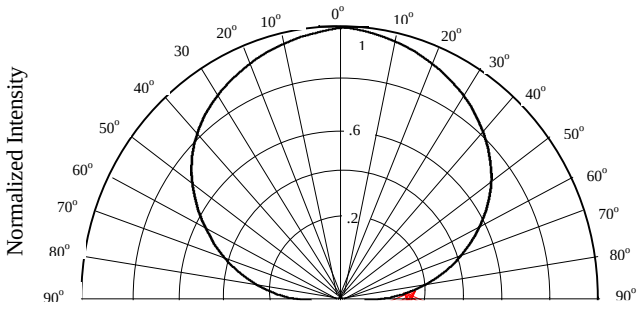


FIG 5. RADIATION DIAGRAM