

## Description

The MSL-154SO, a ORANGE source Chip LED device, is designed in an industry standard package suitable for SMT assembly method. It utilizes GaAsP on GaP LED chip technology and water clear epoxy package.

## Applications

- Small Size
- Industry Standard Footprint(1206)
- Compatible with IR Solder process
- Available in 8 mm Tape on 7"(178mm)

Diameter Reels

## Features

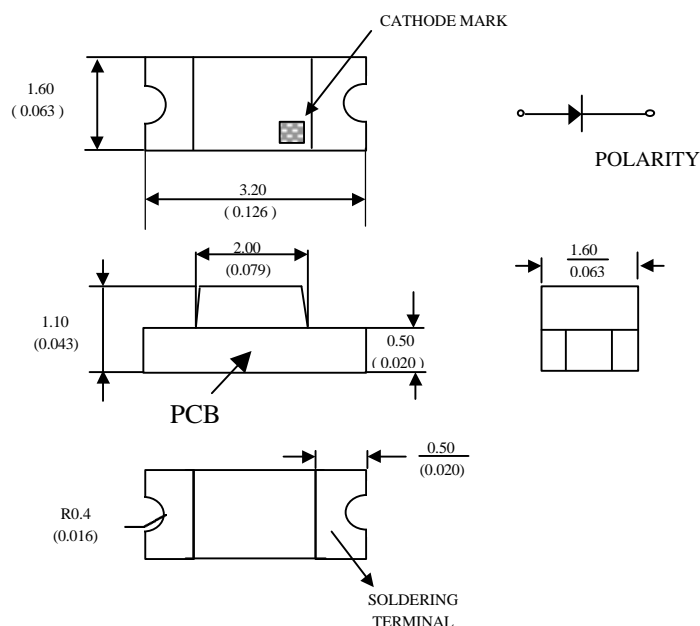
- Push-Button Backlighting
- LCD Backlighting
- Symbol Backlighting
- Front Panel Indicator

## Absolute Maximum Ratings

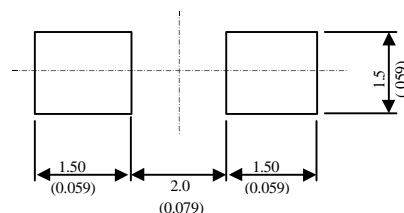
@  $T_A=25^{\circ}\text{C}$

Parameter	Symbol	Maximum Rating	Unit
Peak Forward Current(1/10 Duty Cycle@1KHz )	$I_{FP}$	100	mA
DC Forward Current	$I_F$	25	mA
Power Dissipation	$P_D$	63	mW
Reverse Voltage	$V_R$	5	V
Operating Temperature Range	$T_{OPR}$	$-20^{\circ}\text{C}$ to $+80^{\circ}\text{C}$	
Storage Temperature Range	$T_{STG}$	$-30^{\circ}\text{C}$ to $+100^{\circ}\text{C}$	

## Package Dimensions



## Recommended Solder Patterns



### NOTE:

1. All dimensions are in millimeter (inches)
2. Tolerance is  $\pm 0.1\text{mm}$  (.004") unless otherwise specified.

## Optical-Electrical Characteristics

@  $T_A=25^{\circ}\text{C}$

Parameter	Test Conditions	Symbol	Min .	Typ .	Max .	Unit .
Luminous Intensity	$I_F=20\text{mA}$	$I_V$	40	80	-	mcd
Forward Voltage	$I_F=20\text{mA}$	$V_F$	-	2.2	2.5	V
Reverse Current	$V_R=5\text{V}$	$I_R$	-	-	10	$\mu\text{A}$
Peak/Dominant Wavelength	$I_F=20\text{mA}$	$\lambda_p/\lambda_d$	-	610/605	-	nm
Spectral Linewidth	$I_F=20\text{mA}$	$\Delta\lambda$	-	20	-	nm
Viewing Angle	$I_F=20\text{mA}$	$2\theta_{1/2}$	-	130	-	deg.

## Typical Optical-Electrical Characteristic Curves

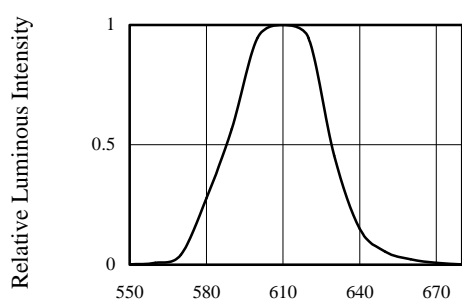


FIG.1 RELATIVE INTENSITY LUMINOUS VS. WAVELENGTH

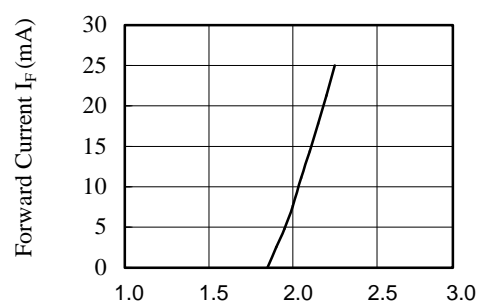


FIG.2 FORWARD CURRENT VS. FORWARD VOLTAGE.

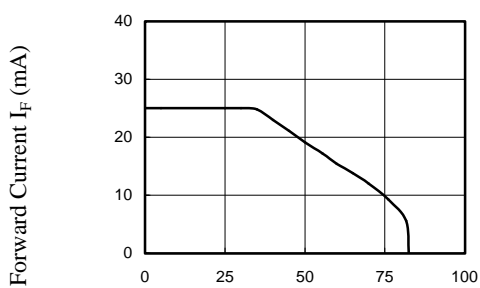


FIG. 3 FORWARD CURRENT VS. AMBIENT TEMPERATURE.

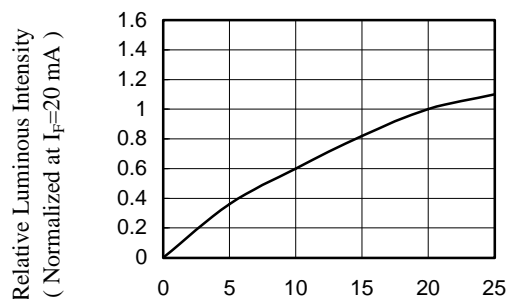


FIG. 4 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT.

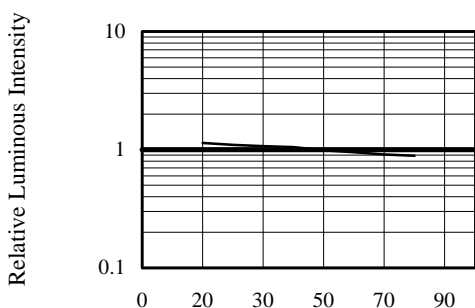


FIG.5 LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

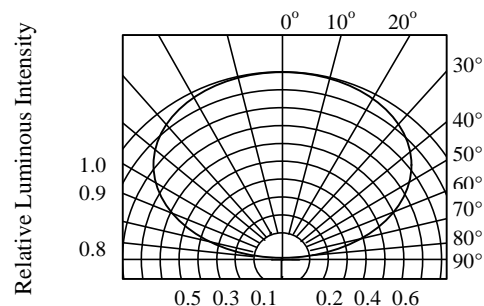


FIG.6 RADIATION DIAGRAM