

# SIDE LOOK PACKAGE SOLID STATE LAMP

## MVL-824HW

### Description

The MSL-824HW, a white source color device, is made with advanced InGaN on Sapphire chip. The package is mixing epoxy and phosphor within white plastic.

### Applications

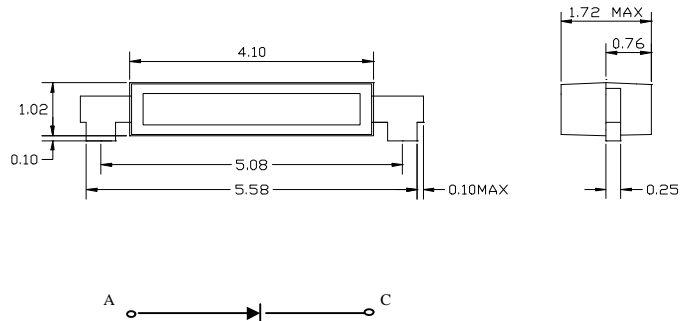
- LCD backlighting
- Symbol backlighting
- Front panel indicator

### Features

- High performance
- Excellent chip to chip consistency
- Uniform distribution pattern

### Package Dimensions

Units : mm



Notes :

1. All dimensions are in millimeters.
2. Tolerance is  $\pm 0.1$  mm unless otherwise noted.
3. Lead plating is minimum 80 micro inch of silver.

### Absolute Maximum Ratings

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

Parameter	Symbol	Maximum Rating	Unit
Power Dissipation	P	100	mW
Continuous Forward Current	$I_F$	25	$\mu\text{A}$
Reverse Current ( $V_R = 5\text{V}$ )	$I_R$	100	$\mu\text{A}$
Operating Temperature Range	$T_{opr}$	$-20^\circ\text{C}$ to $+85^\circ\text{C}$	
Storage Temperature Range	$T_{stg}$	$-40^\circ\text{C}$ to $+100^\circ\text{C}$	
Electrostatic Discharge Threshold (HBM)	$E_{ot}$	200	V

## Optical-Electrical Characteristics

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

Parameter	Test Conditions	Symbol	Min .	Typ .	Max .	Unit .
Luminous Intensity	$I_F=20\text{mA}$	$I_V$	-	180	-	mcd
Forward Voltage	$I_F=20\text{mA}$	$V_F$	-	3.5	4.0	V
Reverse Current	$V_R=5\text{V}$	$I_R$	-	-	100	$\mu\text{A}$
Chromaticity	$I_F=20\text{mA}$	x/y		0.33/0.33		
Viewing Angle	$I_F=20\text{mA}$	$2\theta_{1/2}$	-	110	-	deg.

## Typical Optical-Electrical Characteristic Curves

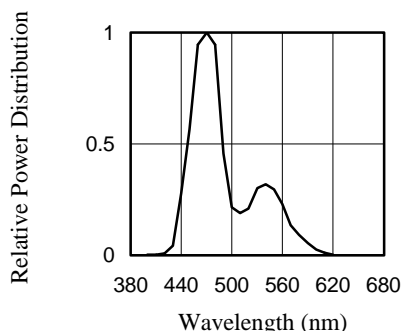


FIG.1 RELATIVE LUMINOUS INTENSITY

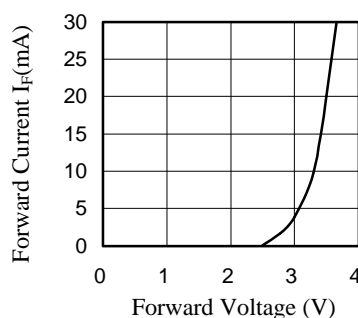


FIG.2 FORWARD CURRENT VS. FORWARD VOLTAGE

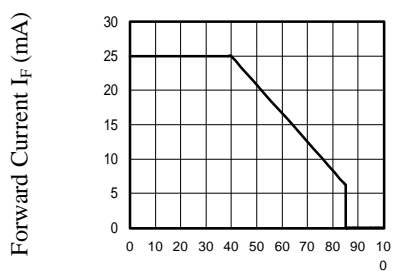


FIG.3 FORWARD CURRENT VS. AMBIENT TEMPERATURE

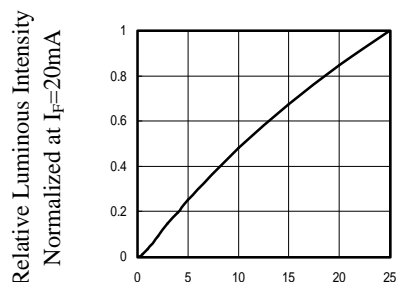


FIG.4 RELATIVE LUMINOUS INTENSITY

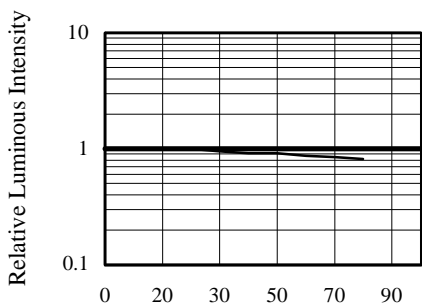


FIG.5 RELATIVE LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

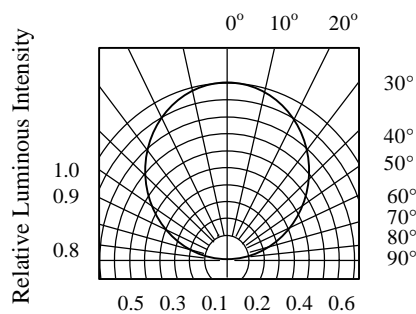


FIG.6 RADIATION DIAGRAM