

Surface Mount Chip LEDs

MSL-194HR

Description

The MSL-194HR, 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(0603)
- Compatible with IR Solder process
- Available in 8 mm Tape on 7"(178mm)

Diameter Reels

Features

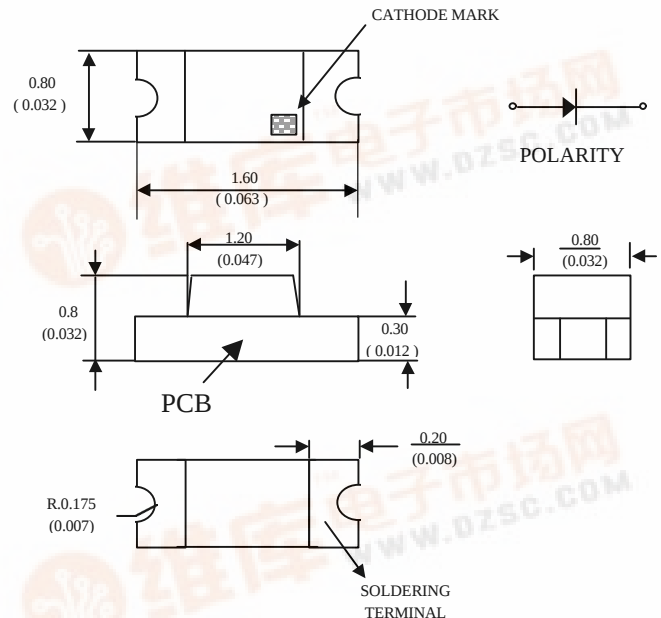
- Push-Button Backlighting
- LCD Backlighting
- Symbol Backlighting
- Front Panel Indicator

Absolute Maximum Ratings

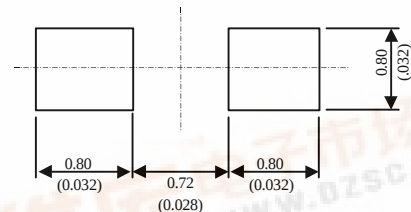
@ T_A=25°C

Parameter	Symbol	Maximum Rating	Unit
Peak Forward Current(1/10 Duty Cycle@1KHz)	I _{FP}	120	mA
DC Forward Current	I _F	25	mA
Power Dissipation	P _D	70	mW
Reverse Voltage	V _R	5	V
Operating Temperature Range	T _{OPR}	-20°C to +80°C	
Storage Temperature Range	T _{STG}	-30°C to +100°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	5.4	11.5	-	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	μA
Peak/Dominant Wavelength	$I_F=20\text{mA}$	λ_p/λ_d	-	630/618	-	nm
Spectral Linewidth	$I_F=20\text{mA}$	$\Delta\lambda$	-	35	-	nm
Viewing Angle	$I_F=20\text{mA}$	$2\theta_{1/2}$	-	130	-	deg.

Typical Optical-Electrical Characteristic Curves

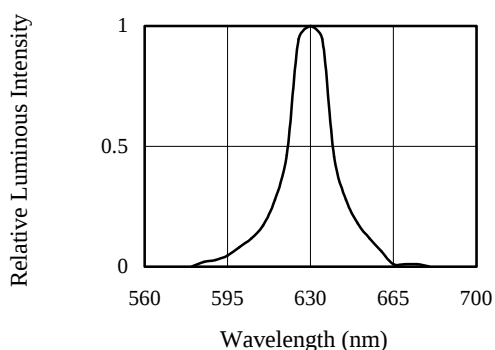


FIG.1 RELATIVE INTENSITY LUMINOUS VS. WAVELENGTH

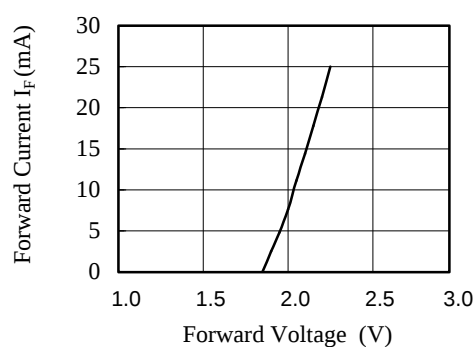


FIG.2 FORWARD CURRENT VS. FORWARD VOLTAGE.

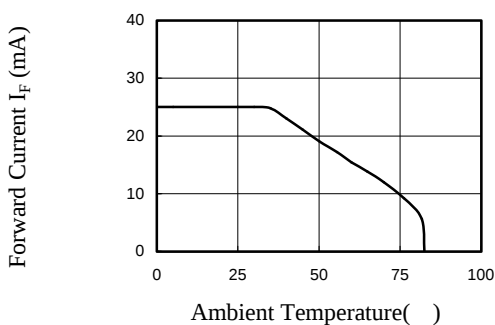


FIG. 3 FORWARD CURRENT VS. AMBIENT TEMPERATURE.

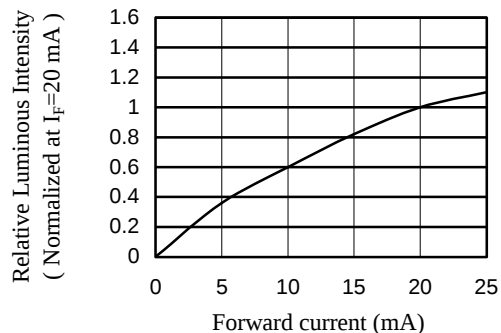


FIG. 4 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT.

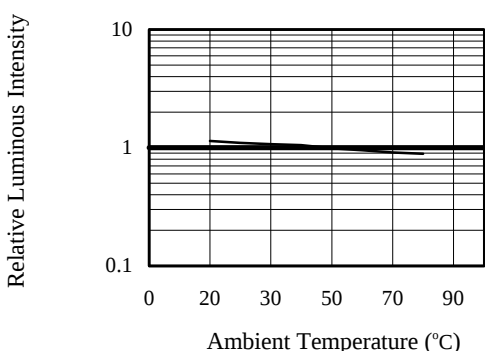


FIG.5 LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

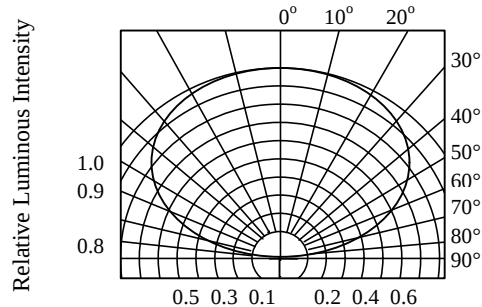


FIG.6 RADIATION DIAGRAM