

**Model: L-TSSR-C01**  
 120 Degree 4.0x 4.0mm Side SMD in High Red Color with Water Transparent

**Dice Material:**  
 AlGaInP

**Applications:**

- Optical indicators
- Coupling into light guides
- Back lights(LCD, switches, keys, displays, illuminated advertising,general lighting)
- Interior automotive lighting.(e.g.dashboard backlighting, etc. )
- Automobile's Applications
- Marker lights (e.g. steps, exit ways, etc)
- Signal and symbol luminaire

**Absolute Maximum Ratings at Ta = 25°C**

Items	Symbol	Absolute maximum Rating	Unit
Forward Current	$I_F$	50	mA
Peak Forward Current*	$I_{FP}$	200	mA
Reverse Voltage	$V_R$	5	V
Power Dissipation	$P_D$	150	mW
Operation Temperature	$T_{opr}$	-40 ~ + 100	°C
Storage Temperature	$T_{stg}$	-40 ~ + 100	°C
Junction temperature	$T_j$	+110	°C
Junction/ambient **	$R_{th JA}$	350	°C /W
Junction/solder point	$R_{th JS}$	250	°C /W

\*pulse width  $\leq 0.1\text{msec}$  duty  $\leq 1/10$  \*\* Rth test condition: Mounted on PC Board FR 4(pad size  $\geq 16\text{mm}^2$ )

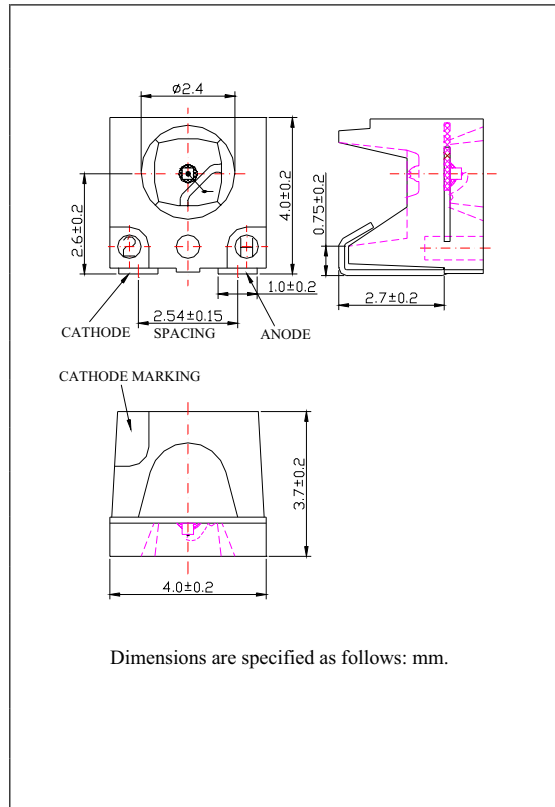
**Typical Electrical & Optical Characteristics ( Ta = 25°C)**

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F = 20\text{mA}$	---	2.1	2.6	V
Reverse Current	$I_R$	$V_R = 5\text{V}$	---	---	10	$\mu\text{A}$
Luminous Intensity	$I_V$	$I_F = 20\text{mA}$	280	400	---	mcd
Dominant Wavelength	$\lambda_D$	$I_F = 20\text{mA}$	620	628	635	nm
50% Power Angle	$2\theta_{\frac{1}{2}}$	$I_F = 20\text{mA}$	---	120	---	deg

**Ranks Combination ( $I_F = 20\text{mA}$ )**

Rank	T1	T2	U1
Luminous Intensity	280-355 mcd	355-450 mcd	450-560 mcd

**Dimension Drawing**



### Graphs

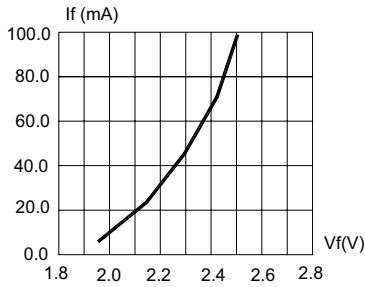


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

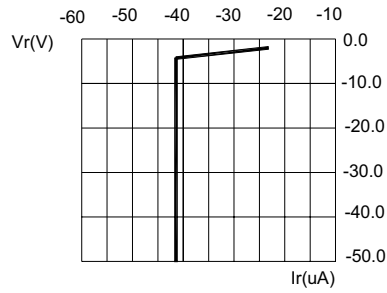


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

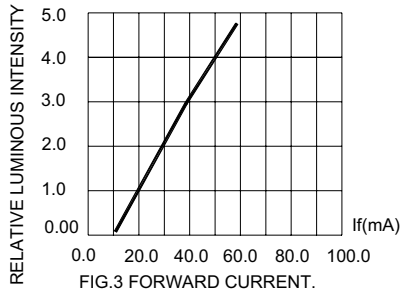


FIG.3 FORWARD CURRENT.

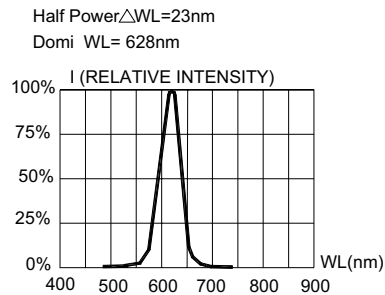


FIG.4 RELATIVE INTENSITY VS. WAVE LENGTH.

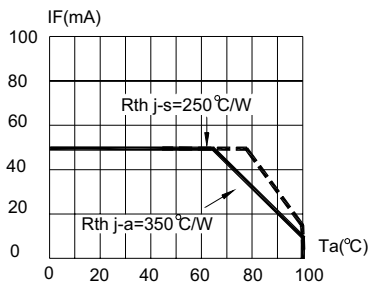


FIG.5 MAXIMUM FORWARD DC CURRENT VS TEMPERATURE. DERATING BASED ON  $T_{jmax}=110^{\circ}\text{C}$

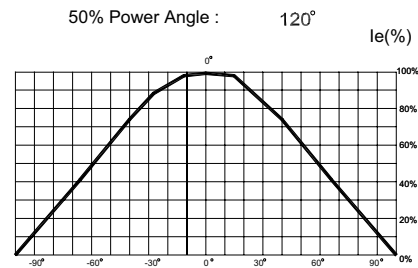


FIG.6 SPATIAL DISTRIBUTION.