

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 $\geq 16\text{mm}^2$)

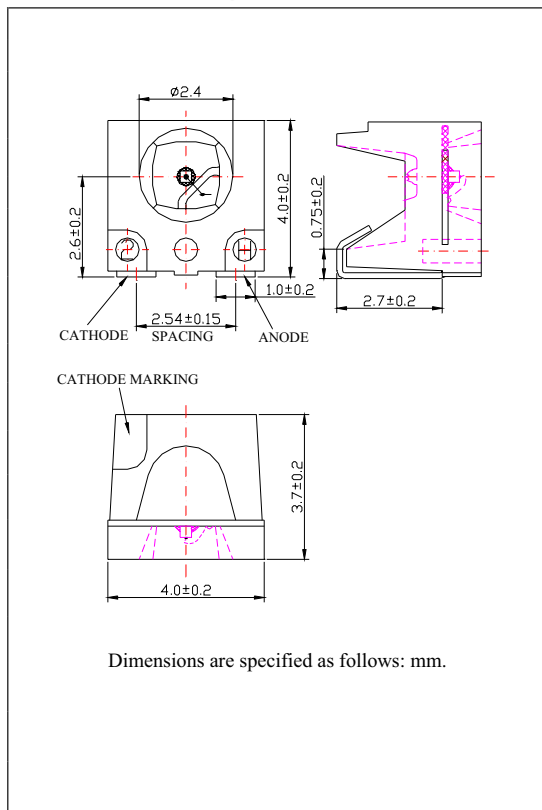
Typical Electrical & Optical Characteristics (Ta = 25°C)

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	μA
Luminous Intensity	I_V	$I_F = 20\text{mA}$	280	400	---	mcd
Dominant Wavelength	λ_D	$I_F = 20\text{mA}$	620	628	635	nm
50% Power Angle	$2\theta_{1/2}$	$I_F = 20\text{mA}$	---	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

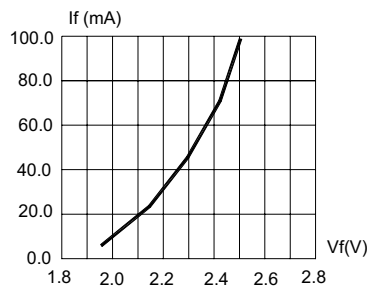


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

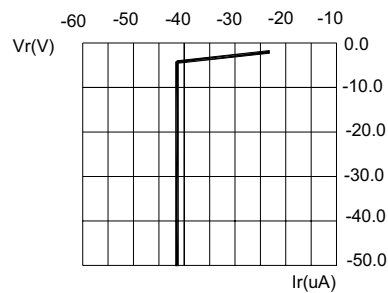


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

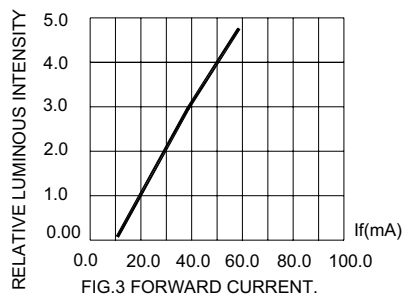


FIG.3 FORWARD CURRENT.

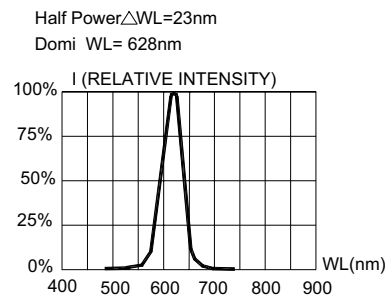


FIG.4 RELATIVE INTENSITY VS. WAVE LENGTH.

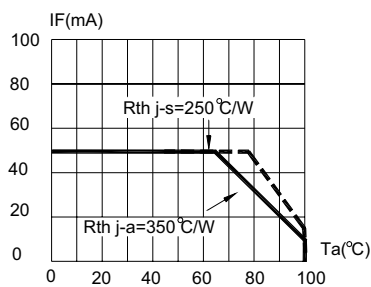


FIG.5 MAXIMUM FORWARD DC CURRENT VS TEMPERATURE. DERATING BASED ON $T_{jmax}=110^{\circ}\text{C}$

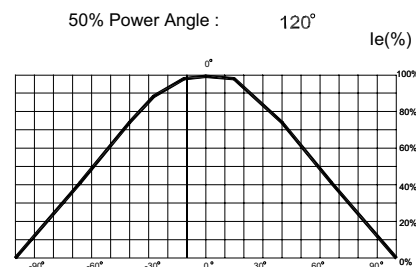


FIG.6 SPATIAL DISTRIBUTION.