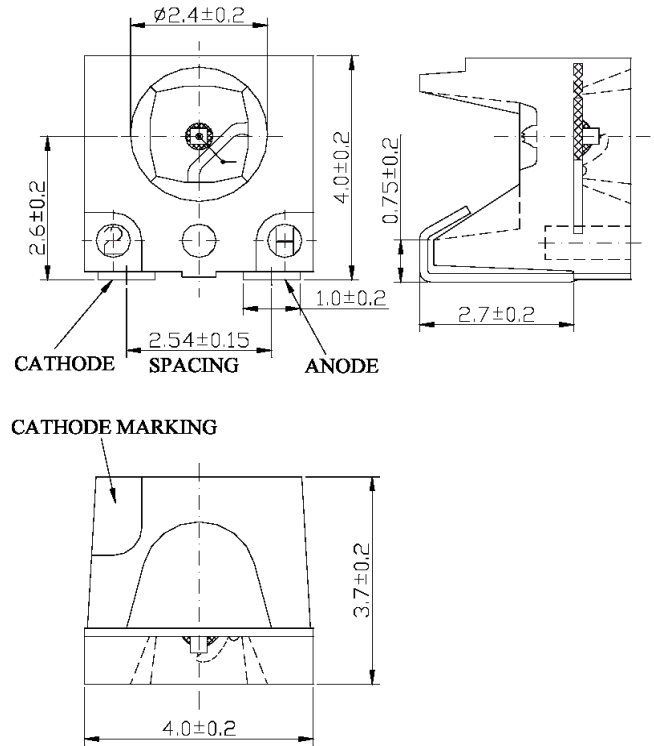


LS1-THR1-01

Applications

- Optical indicators
- Coupling into light guides
- Back lights (LCD, switches, keys, displays, illuminated advertising, general lighting)
- Interior automotive lighting (dashboard backlighting)
- Marker lights (steps, exit ways)
- Signal and symbol luminaire
- Automotive applications



Maximum Ratings (Ta=25°C)

Characteristic	Symbol	Max.	Unit
Forward Current	I_F	50	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	150.00	mW
Operating Temperature	T_{opr}	-40 ~ +100	°C
Storage Temperature	T_{stg}	-40 ~ +100	°C
Soldering Temperature	T_{sol}	250	°C
Soldering Time	-	for 3 sec. max	-

Dimensions are specified as follows: mm.

Opto-Electrical Characteristics (Ta=25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F=20mA$	-	2.10	2.60	V
Reverse Current	I_R	$V_R=5V$	-	-	10	μA
Luminous Intensity	I_v	$I_F=20mA$	280.00	400.00	-	mcd
Viewing Angle	$2\theta^{1/2}$	-	-	120°	-	deg.
Peak Wavelength	λ_p	$I_F=20mA$	-	639	-	nm
Dominant Wavelength	λ_d	$I_F=20mA$	-	628	-	nm
Spectral Line Half Width	$\Delta\lambda$	$I_F=20mA$	-	23	-	nm

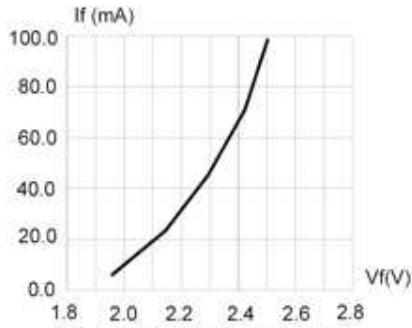


FIG. 1 FORWARD CURRENT VS. FORWARD VOLTAGE.

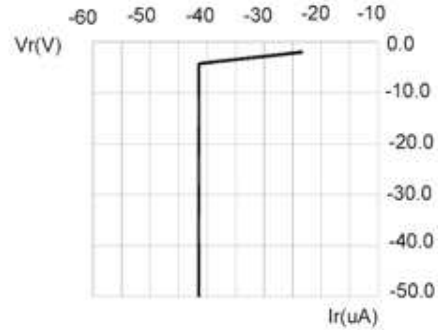


FIG. 2 REVERSE CURRENT VS. REVERSE VOLTAGE.

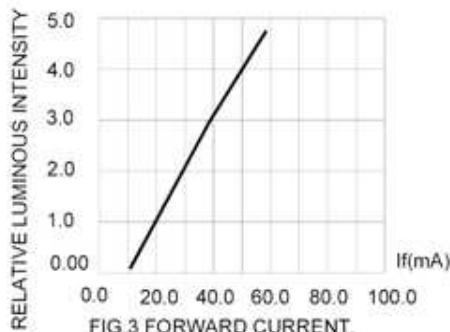


FIG. 3 FORWARD CURRENT.

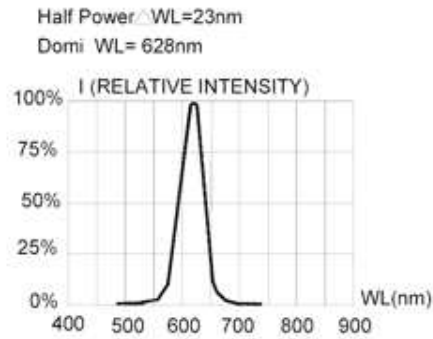


FIG. 4 RELATIVE INTENSITY VS. WAVE LENGTH.

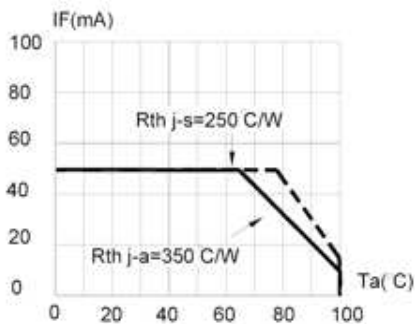


FIG. 5 MAXIMUM FORWARD DC CURRENT VS TEMPERATURE. DERATING BASED ON $T_{jmax}=110\text{ C}$

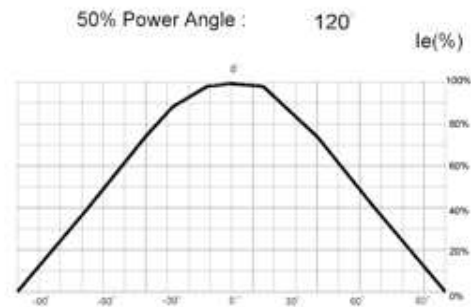


FIG. 6 SPATIAL DISTRIBUTION.