

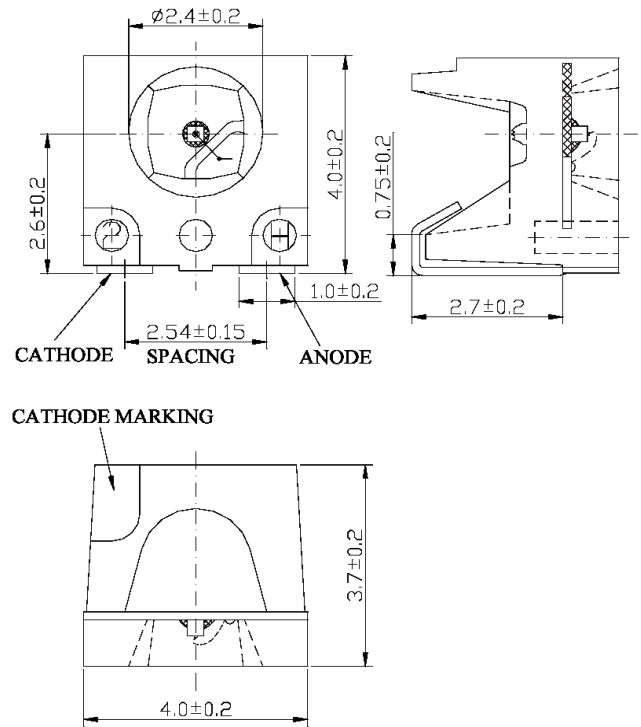
## LS1-TRO1-01

### 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 <sub>F</sub>	50	mA
Reverse Voltage	V <sub>R</sub>	5	V
Power Dissipation	P <sub>D</sub>	130.00	mW
Operating Temperature	T <sub>opr</sub>	-40 ~ +100	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +100	°C
Soldering Temperature	T <sub>sol</sub>	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 <sub>F</sub>	I <sub>F</sub> =20mA	-	2.10	2.60	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V	-	-	10	μA
Luminous Intensity	I <sub>v</sub>	I <sub>F</sub> =20mA	280.00	450.00	-	mcd
Viewing Angle	2θ <sup>1/2</sup>	-	-	120°	-	deg.
Peak Wavelength	λ <sub>p</sub>	I <sub>F</sub> =20mA	-	625	-	nm
Dominant Wavelength	λ <sub>d</sub>	I <sub>F</sub> =20mA	-	618	-	nm
Spectral Line Half Width	Δλ	I <sub>F</sub> =20mA	-	23	-	nm

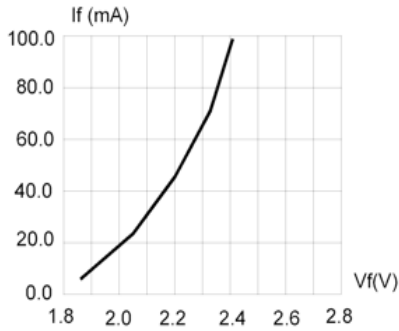


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

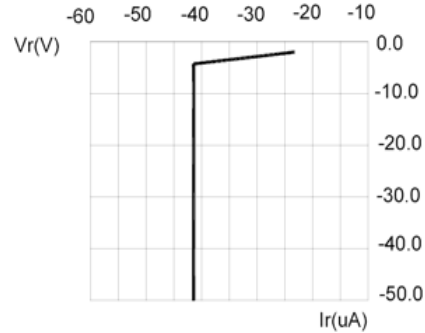


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

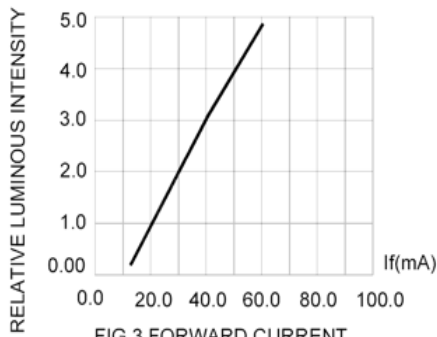


FIG.3 FORWARD CURRENT.

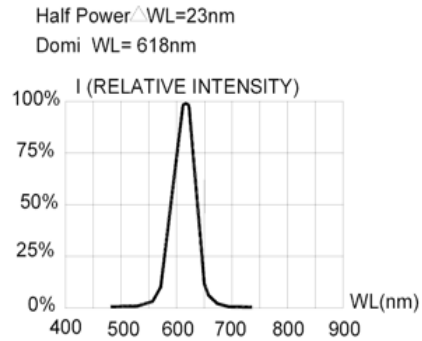


FIG.4 RELATIVE INTENSITY VS. WAVE LENGTH.

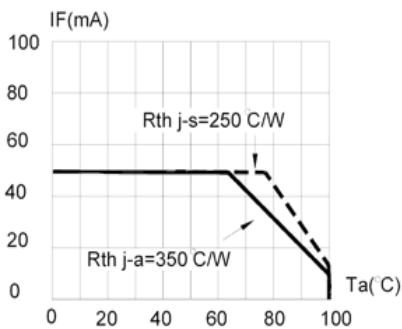


FIG.5 MAXIMUM FORWARD DC CURRENT VS TEMPERATURE. DERATING BASED ON  $T_{jmax}=110\text{ C}$

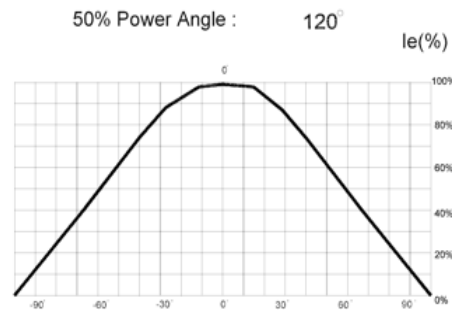


FIG.6 SPATIAL DISTRIBUTION.