

# TOL- 502WWSC

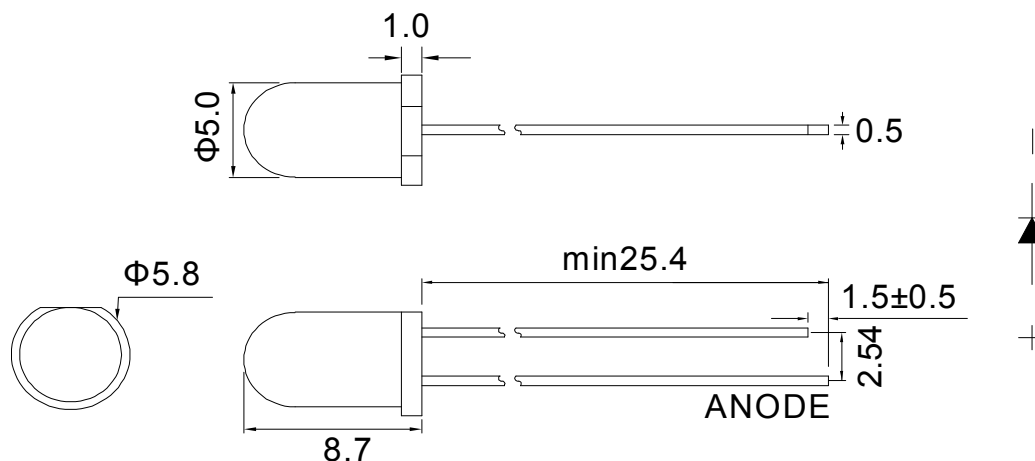
## Lamp LED

Part Number	Chip		Lens Color
	Material	Source Color	
TOL-502WWSC	InGaN	Warm White	Water Clear

### Features

- I.C. compatible.
- Low power consumption.
- Compatible with wave soldering process.
- 5.0mm diameter package.
- Long life, stable and reliable.
- RoHS compliant.

### Dimensions



#### Notes:

1. All dimensions are in millimeter.
2. Tolerance is  $\pm 0.25\text{mm}$  unless otherwise noted.

## Absolute Maximum Rating @ Ta=25°C

Parameter	Maximum Rating	Unit
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
Power Dissipation	105	mW
Continuous Forward Current	20	mA
Reverse Voltage	5	V
Operating Temperature Range	-40°C to +80°C	
Storage Temperature Range	-40°C to +100°C	
Wave Soldering Profile For Lead Free Soldering	260°C for 5 Sec	

## Electrical / Optical Characteristic @ Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I <sub>v</sub>		14800		mcd	I <sub>F</sub> =20mA
Viewing Angle	2θ <sub>1/2</sub>		20		deg	I <sub>F</sub> =20mA
Correlated Color Temperature	T <sub>c</sub>		3500		K	I <sub>F</sub> =20mA
Forward Voltage	V <sub>F</sub>		3.2		V	I <sub>F</sub> =20mA
Reverse Current	I <sub>R</sub>			10	μA	V <sub>R</sub> =5V
Chromaticity Coordinates	X		0.42			I <sub>F</sub> =20mA
	Y		0.40			I <sub>F</sub> =20mA

## Bin Code List for Reference

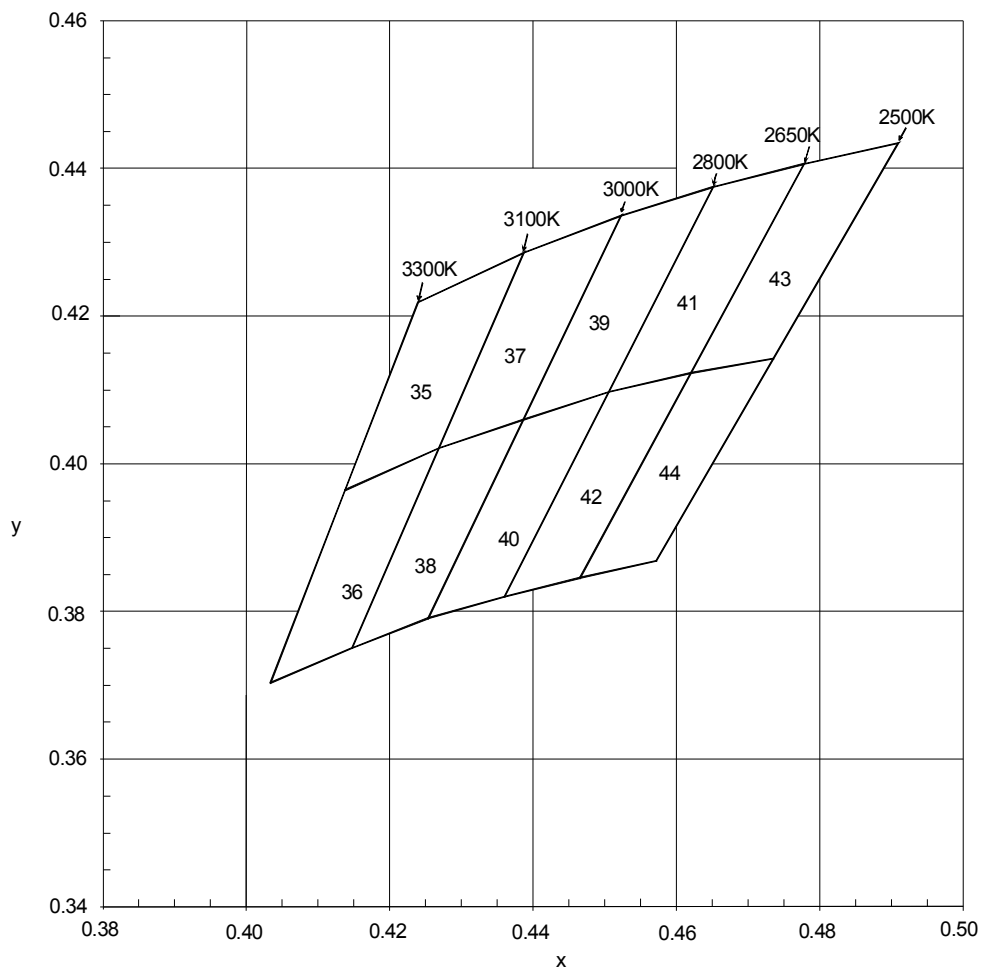
Luminous Intensity		Unit : mcd@20mA	
Bin Code	Min	Max	
B50	9400	11800	
B51	11800	14800	
B52	14800	18500	

Tolerance of Luminous Intensity on each bin is ±11%.

Forward Voltage		Unit : V@20mA	
Bin Code	Min	Max	
V10	2.8	3.0	
V11	3.0	.2	
V12	3.2	3.4	

Tolerance for each Forward Voltage Bin is  $\pm 0.1V$ .

## Chromaticity Diagram



Rank 35 (3100-3300K)					
X	0.4258	0.4405	0.4284	0.4152	0.4258
Y	0.4214	0.4278	0.4012	0.3956	0.4214

Rank 36 (3100-3300K)					
X	0.4152	0.4284	0.4163	0.4047	0.4152
Y	0.3956	0.4012	0.3745	0.3697	0.3956

Rank 37 (3000-3100K)					
X	0.4405	0.4541	0.4406	0.4284	0.4405
Y	0.4278	0.4327	0.4055	0.4012	0.4278

Rank 38 (3000-3100K)					
X	0.4284	0.4406	0.4272	0.4163	0.4284
Y	0.4012	0.4055	0.3783	0.3745	0.4012

Rank 39 (2800-3000K)					
X	0.4541	0.4674	0.4526	0.4406	0.4541
Y	0.4327	0.4367	0.4090	0.4055	0.4327

Rank 40 (2800-3000K)					
X	0.4406	0.4526	0.4379	0.4272	0.4406
Y	0.4055	0.4090	0.3814	0.3783	0.4055

Rank 41 (2650-2800K)					
X	0.4674	0.4803	0.4643	0.4526	0.4674
Y	0.4367	0.4398	0.4117	0.4090	0.4367

Rank 42 (2650-2800K)					
X	0.4526	0.4643	0.4485	0.4379	0.4526
Y	0.4090	0.4117	0.3838	0.3814	0.4090

Rank 43 (2500-2650K)					
X	0.4803	0.4933	0.4758	0.4643	0.4803
Y	0.4398	0.4428	0.4136	0.4117	0.4398

Rank 44 (2500-2650K)					
X	0.4643	0.4758	0.4591	0.4485	0.4643
Y	0.4117	0.4136	0.3863	0.3838	0.4117

\*Color Coordinates Measurement allowance is  $\pm 0.01$ .