

## Super Bright LED

### Features

- High efficient light output
- Low thermal resistance
- Compatible with automatic placement equipment
- Mono-color type
- RoHS Compliant

### Applications

- Vehicle Signal Lamp
- Architecture lighting
- Specialty lighting

### Device Selection Guide

Chip			Lens Color
Part No.	Material	Emitted Color	
TLH-Q1W8-ZIKK	AllnGaP	Red	Water Clear

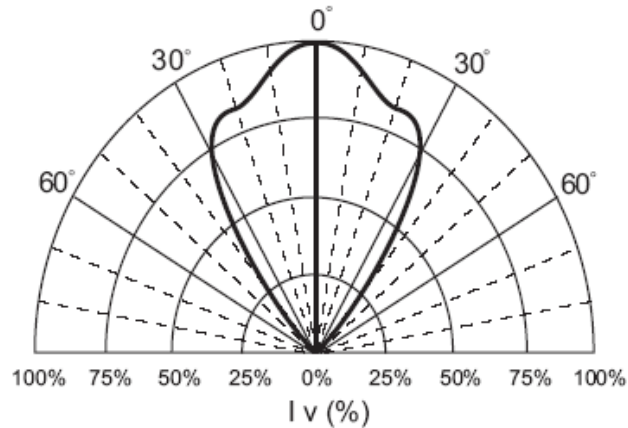
### Absolute Maximum Ratings ( $T_{amb}=25^{\circ}C$ )

Parameter	Symbol	Value	Unit
Reverse Voltage	$V_R$	10	V
Forward Current	$I_F$	70	mA
Power Dissipation	$P_d$	224	mW
Operating Temperature	$T_{opr}$	-40 ~ +85	$^{\circ}C$
Storage Temperature	$T_{stg}$	-40 ~ +100	$^{\circ}C$
Lead Soldering Temperature	$T_{sol}$	260 (for 5 seconds)	$^{\circ}C$

### Electro-Optical Characteristics ( $T_{amb}=25^{\circ}C$ )

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Flux	$\Phi_v$	2750	3500	-----	mlm	$I_F=70mA$
Viewing Angle	$2\theta_{1/2}$	-----	70	-----	deg	
Dominant wavelength	$\lambda_d$	-----	623	-----	nm	
Forward Voltage	$V_F$	-----	2.7	3.2	V	
Reverse Current	$I_R$	-----	-----	100	$\mu A$	$V_R=10V$

### Typical Electro-Optical Characteristics Curves



**Radiation Diagram**

### Reliability Test Items and Conditions

The reliability of products shall be satisfied with items listed below.

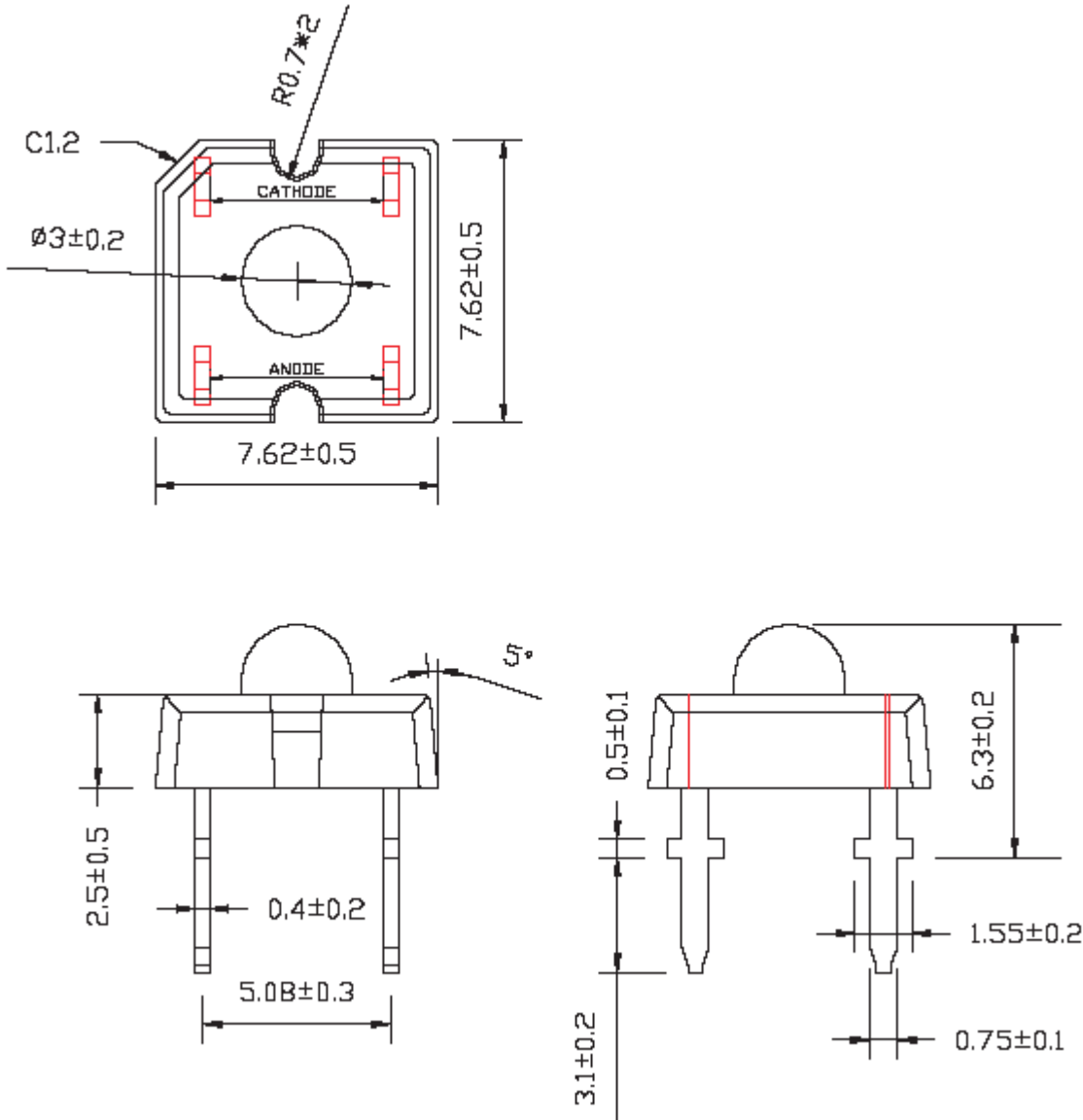
The reliability is tested in compliance with MIL standard.

No.	Items	Test Condition	Test Hours / Cycles	Sample Size	Ac/Re
1	Operating Life Test	Temp.: 25°C IF = 350 mA	1000 Hrs.	22 PCS.	0/1
2	Temperature Cycle	H: +100°C 30min M:25°C 5 min L: 0°C 30min	50 Cycles	22 PCS.	0/1
3	Thermal Shock Test	H: +100°C 2min L: 0°C 2min	1000 Cycles	22 PCS.	0/1
4	High Temperature Storage	Temp.: 100°C	1000 Hrs.	22 PCS.	0/1
5	Low Temperature Storage	Temp.: -40°C	1000 Hrs.	22 PCS.	0/1
7	High Temperature / High Humidity	85°C / 85%RH IF = 100 mA	500 Hrs.	22 PCS.	0/1

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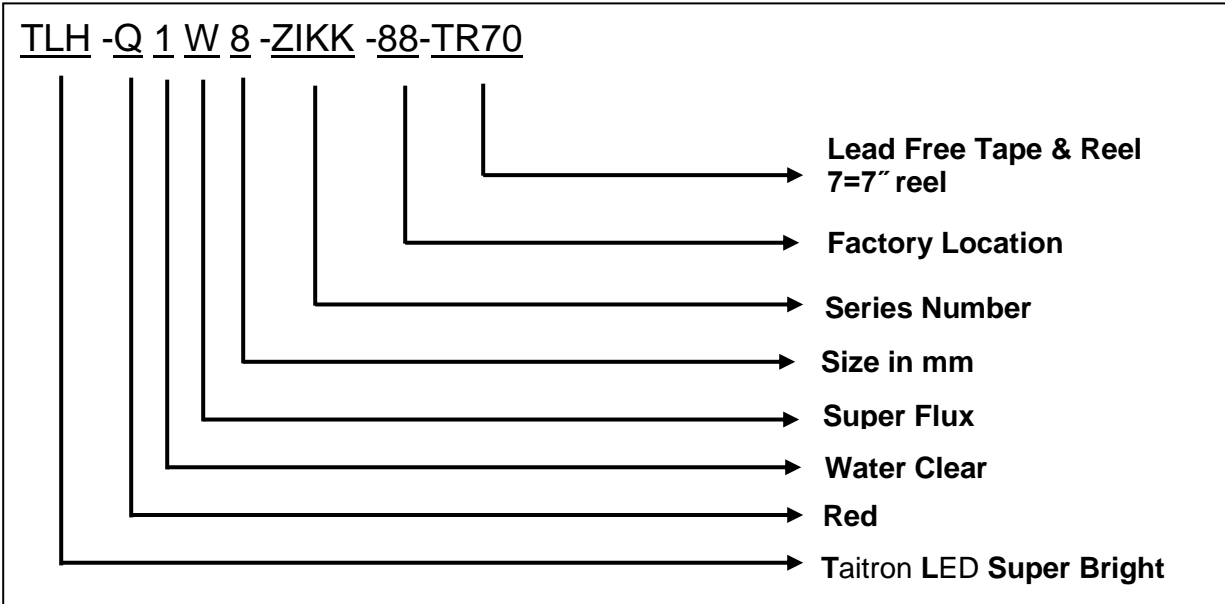
## TLH-Q1W8-ZIKK

### Package Dimensions (In mm)



- Note:** 1. The tolerances unless mentioned is  $\pm 0.2$ mm.  
2. Protruded resin under bottom surface of epoxy is 1.5mm Max.

**Ordering Information**



**Code of Luminous Flux**

Code	Min.	Max.	Unit	Condition
E	2750	3850	mlm	If=70mA
F	3850	5400		

### How to contact us

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