QW-3WR-X

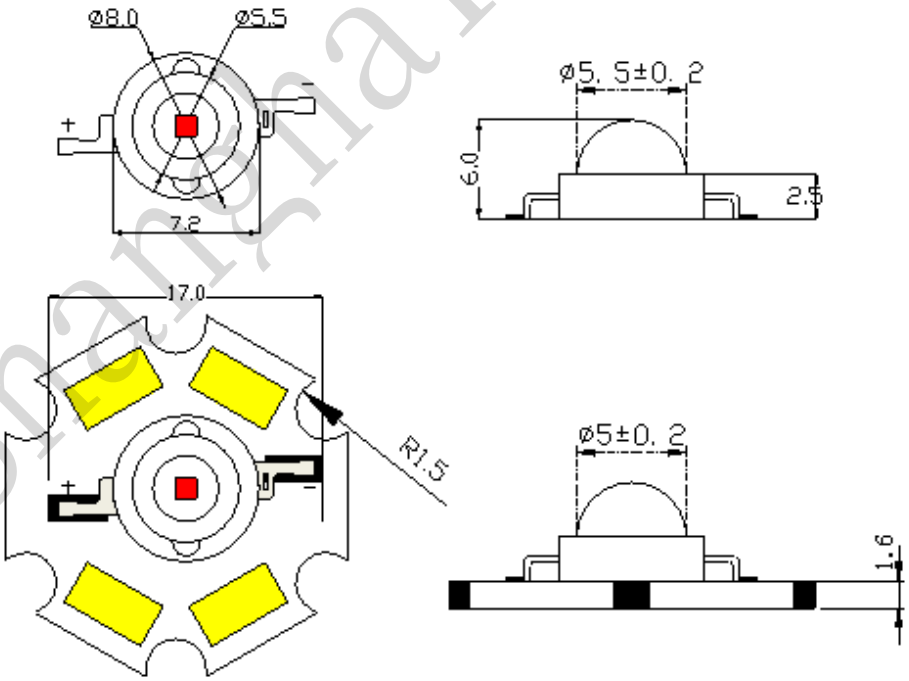
High Power LED

Part Number	Chip		Lens Color
	Material	Source Color	
QW-3WR-X	AlGaInP	Red	Water Clear

Features

- High brightness red LED round package
- Light output intendity grade Viewing angle 140 degree
- Epoxy lens color.Water Clear
- RoHS compliant

Dimensions



Notes:

1. All dimensions are in millimeters.
2. Tolerance is ±0.1mm unless otherwise noted.

Absolute Maximum Rating @ Ta=25°C

Parameter	Symbol	Maximum Rating	Unit
Continuous Forward Current	IF	700	mA
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	IFp	1000	mA
Reverse Voltage	VR	5	V
Power Dissipation	PD	3000	mW
Electrostatic discharge	ESD	1000	V
Operating Temperature Range	TOPR	-25°C to +85°C	
Storage Temperature Range	TSTG	-35°C to +105°C	
Lead Soldering Temperature (3mm from tne base of the epoxy bulb)	TSOL	360°C	

Electrical / Optical Characteristic @ Ta=25°C

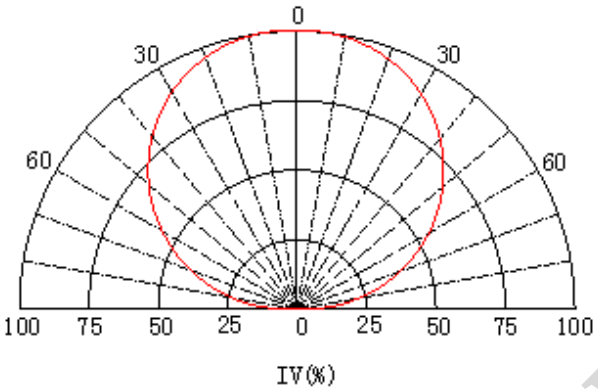
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Forward Voltage	VF	1.8	2.2	2.6	V	I_F=700mA
Luminous Flux	Φ	80	100		Lm	I_F=700mA
Wavelength	Wld		625		nm	I_F=700mA
Reverse Current	IR	0		10	μA	V_R=5V
Viewing Angle	2θ1/2			140	deg	I_F=700mA
Recommend Forward Current	IF(rec)			700	mA	

tolerance of measurement of forward voltage±0.1V

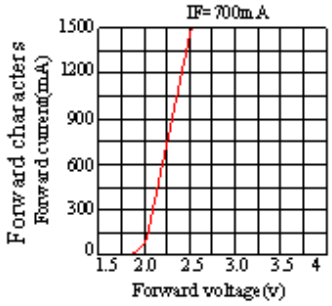
Typical Electrical / Optical Character Curves

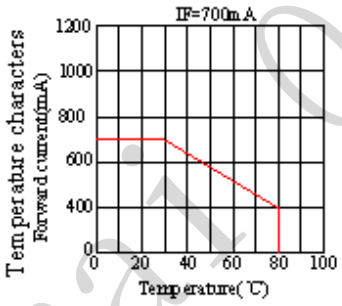
(25 ° Ambient Temperature Unless Otherwise Noted)

Spotial Disttrbution



Typical electrical-optical Characteristics curvers



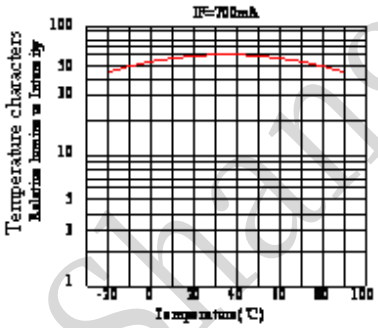


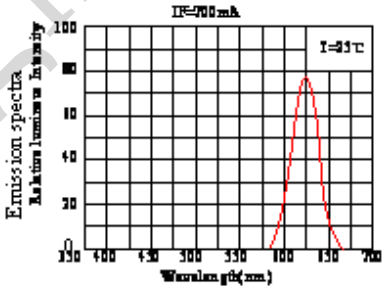
Notes:

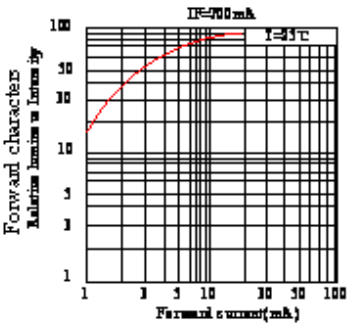
The data are an typical presenlation of the product,Contact customer service for details of technical information and warranty.

The product is sensitive to static antistatic operation environment is recommended

Products are shipped in either bulk bag package or taping.







Reliability Tests

Type	Test Item	REF Standard	Test Condition	Note	Number of Damaged
Environmental Sequence	Temperature Cycle	JIS C 7021 (1997)A-4	-20°C*30mins~25°C *5mins~ 80°C * 30mins	100 cycles	0/100
	High Humidity Heat Cycle	JIS C 7021 (1997)A-5	30°C→65°C, RH= 90% 24hrs/1cycle	10 cycles	0/100
	High Temperature Storage	JIS C 7021 (1997)B-10	Ta= 80°C	1000h	0/100
	Humidity Heat Storage	JIS C 7021 (1997)B-11	Ta=60°C RH=90%	1000h	0/100
	Low Temperature Storage	JIS C 7021 (1997)B-12	Ta= -30°C	1000h	0/100
Operation Sequence	DC Operating Life	JIS C 7035 (1985)	Ta= 25°C, IF=700mA	1000h	0/100
	High Humidity Heat Life Test	*	Ta=60°C RH=90% IF=700mA	500h	0/100
	Low Temperature Life Test	*	Ta= -20°C, IF=700mA	1000h	0/100
Destructive Sequence	Resistance to Soldering Heat	JIS C 7021 (1997)A-11	Tsol=260±5℃,10sec (3mm from the base of the epoxy bulb)	1 time	0/20
	Solderability	JIS C 7021 (1997)A-2	Tsol=235 ±5℃,5sec (Using flux)	1 time (over 95%)	0/20
	Lead Pull/Bend Test	JIS C 7021 (1997)A-11	Load 2.5N (0.25kgf) 0°→ 90°→0° Bending 3 times	No noticeable damage	0/20

*Refer to reliability test standard specification for in this line.