# TX-R3A140-010G

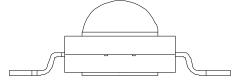
# **PRODUCT SPECIFICATION**

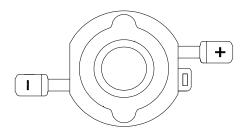
Approved by:

Checked by:

Prepared by:

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## Notes:

- 1. Thermoelectric integrated Red chip packaged in this product.
- 2. All dimensions are in millimeters (inches).
- 3. Tolerance is ±0.25 mm (0.01") unless otherwise noted.

Part NO.	Lens Color	Source Color		
TX-R3A140-010G	Water Gear	Red		

## Absolute Maximum Ratings at Ta=25

Parameter	Symbol	MAX	Unit
LED Junction Temperature	Tj	125	
Power Dissipation	P <sub>D</sub>	2170	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	I <sub>P</sub>	1000	mA
Continuous Forward Current	IF	700	mA
Reverse Voltage	V <sub>R</sub>	5	V
Electrostatic Discharge Threshold (ESD)	ESD	2000	V
Operating Temperature Range	T <sub>opr</sub>	-40 to +70	
Storage Temperature Range	T <sub>spr</sub>	-40 to +100	
Lead Soldering Temperature	Tsol	Hand Soldering: 350	for 8 sec.

#### Notes:

- 1. Specifications are subject to change without notice.
- 2. Under the stipulated Characteristics parameters above, the life span of the LED is more than 50,000hours.
- 3. The data on this specification is for reference only and the actual data is in accordance with the acknowledgment.
- 4. Precautions for ESD:

STATIC SHIBLD Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

#### Characteristics at If=700mA, Vr=5V (Ta=25°C)

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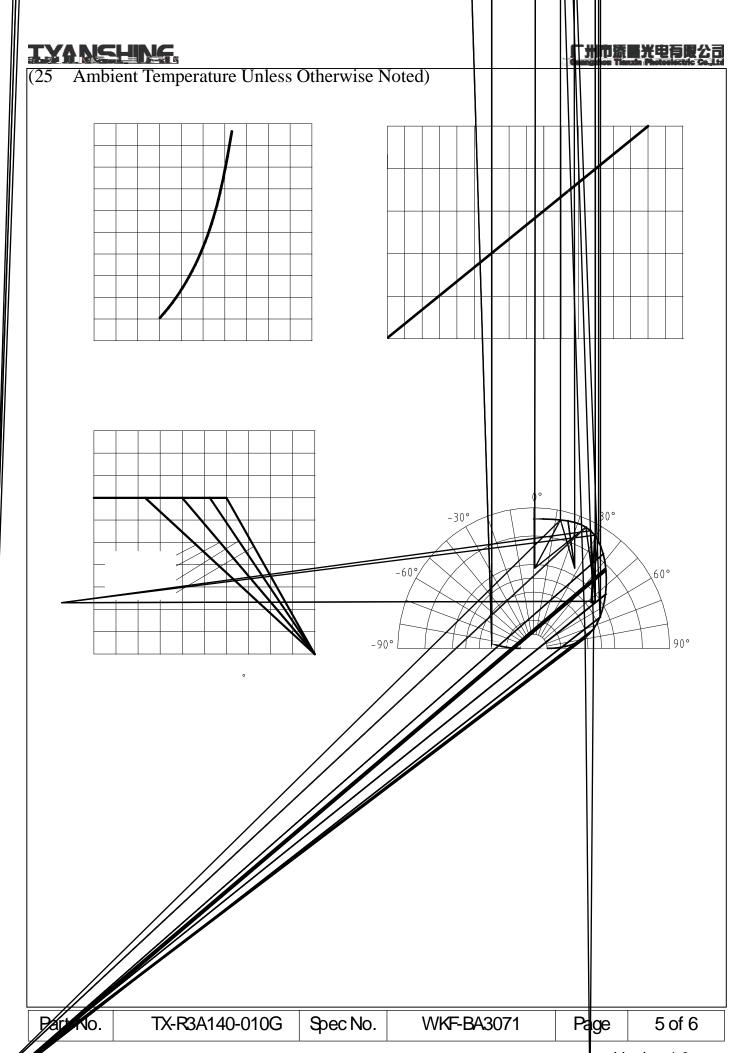
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Doromatar	Symbol	Values			l laita
Parameter		Min.	Тур.	Max.	Units
Luminous Hux	φν	100	140		lm
Viewing Angle at 50 IV	2θ <sub>1/2</sub>		140		Deg
Peak Emission Wavelength	λр	625	630	635	nm
Dominant Wavelength	λd	618	620	628	nm
Spectral Line Half-Width	λ	15	20	25	nm
Forward Voltage	V <sub>f</sub>	2.0	2.3	2.7	V
Reverse Current	I <sub>R</sub>			10	μA
Thermal Resistance Junction to Case	Rθ <sub>JC</sub>		5.9		ΚW
Temperature Coefficient of Forward Voltage	V F/T		-2		mV/

### Notes:

- 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
- $2.\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity
- 3. The dominant wavelength ( $\lambda d$ ) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
- 4. Flux is measured with an accuracy of ±15%.
- 5. Forward voltage is measured with an accuracy of  $\pm 0.15$ V.

# Typical Electrical / Optical Characteristics Curves



Version:1.0

