

# **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  $\pm 0.25$  mm (0.01") unless otherwise noted.

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

**Absolute Maximum Ratings at Ta=25**

Parameter	Symbol	MAX.	Unit
LED Junction Temperature	T <sub>j</sub>	125	
Power Dissipation	P <sub>D</sub>	2170	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	I <sub>FP</sub>	1000	mA
Continuous Forward Current	I <sub>F</sub>	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	T <sub>sol</sub>	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 SHIELD 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 I<sub>f</sub>=700mA ,V<sub>r</sub>=5V (Ta=25°C)**

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Parameter	Symbol	Values			Units
		Min.	Typ.	Max.	
Luminous Flux	$\phi_v$	100	140		lm
Viewing Angle at 50° IV	$2\theta_{1/2}$		140		Deg
Peak Emission Wavelength	$\lambda_p$	625	630	635	nm
Dominant Wavelength	$\lambda_d$	618	620	628	nm
Spectral Line Half-Width	$\lambda$	15	20	25	nm
Forward Voltage	$V_f$	2.0	2.3	2.7	V
Reverse Current	$I_R$			10	$\mu A$
Thermal Resistance Junction to Case	$R_{\theta_{J-C}}$		5.9		K/W
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  $\pm 15\%$ .
5. Forward voltage is measured with an accuracy of  $\pm 0.15V$ .

### Typical Electrical / Optical Characteristics Curves

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(25 Ambient Temperature Unless Otherwise Noted)



