

# RL070R3

## Hi-Eff Red

3.8 x1.8mm, Rectangle Body, 5.2mm Height  
120° viewing angle

DWG BY:  
BL / GP  
09-22-06

CHK BY:  
PL  
09-25-06

QA:  
\_\_-\_\_-06

MFG:  
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REVISION LTR: -  
09-22-06

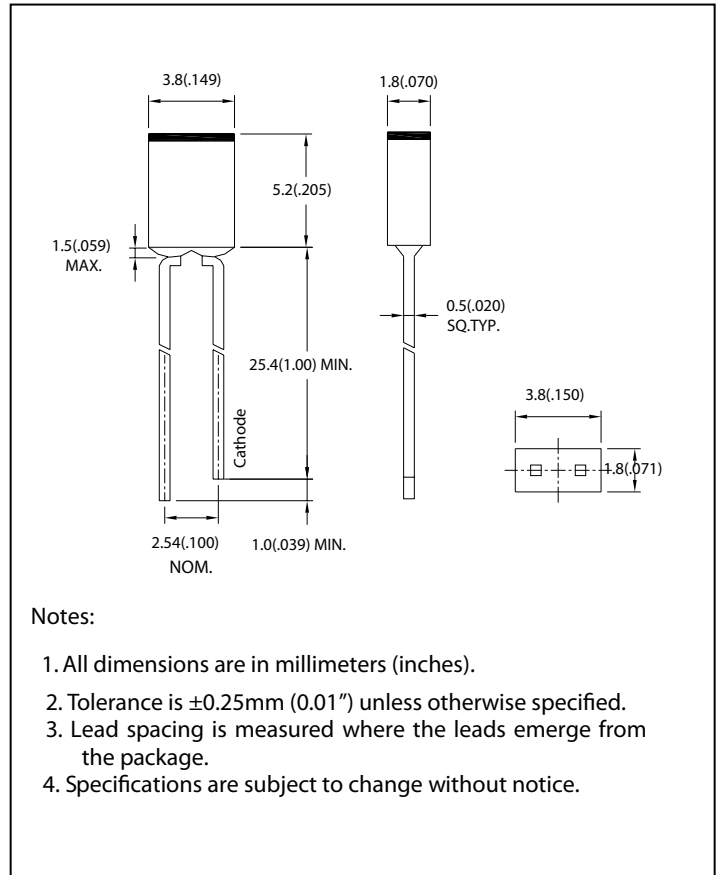
● Features:

1. Chip material: GaAsP/GaP
2. Emitted color : Hi-Eff Red
3. Lens Appearance : Red Diffused
4. Low power consumption.
5. Most suitable for use like level indicator.
6. Excellent uniformity of light emittance.
7. Long life solid state reliability.
8. Compatible.
9. This product is RoHS compliant.

● Applications:

1. TV set
2. Monitor
3. Telephone
4. Computer
5. Circuit board

● Package dimensions:



● Absolute maximum ratings( $T_a=25^\circ\text{C}$ )

Parameter	Symbol	Rating	Unit
Power Dissipation	P <sub>d</sub>	80	mW
Forward Current	I <sub>F</sub>	30	mA
Peak Forward Current* <sup>1</sup>	I <sub>FP</sub>	150	mA
Reverse Voltage	V <sub>R</sub>	5	V
Operating Temperature	T <sub>opr</sub>	-40°C~80°C	
Storage Temperature	T <sub>stg</sub>	-40°C~85°C	
Soldering Temperature	T <sub>sol</sub>	260°C (for 5 seconds)	

\*<sup>1</sup>Condition for I<sub>FP</sub> is pulse of 1/10 duty and 0.1msec width.

● **Electrical and optical characteristics(Ta=25°C)**

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F=20mA$	-	2.0	2.6	V
Luminous Intensity	$I_v$	$I_F=20mA$	-	5	-	mcd
Reverse Current	$I_R$	$V_R=5V$	-	-	100	$\mu A$
Peak Wave Length	$\lambda_p$	$I_F=20mA$	-	643	-	nm
Dominant Wave Length	$\lambda_d$	$I_F=20mA$	-	629	-	nm
Spectral Line Half-width	$\Delta \lambda$	$I_F=20mA$	-	42	-	nm
Viewing Angle	$2\theta_{1/2}$	$I_F=20mA$	-	120	-	deg
Radiant Intensity		$I_F=20mA$	-	-	-	mW/sr
Chromaticity Coordinates	X	$I_F=20mA$	-	0.70	-	
	Y		-	0.29	-	

● **Typical electro-optical characteristics curves**

Fig.1 Relative intensity vs. Wavelength

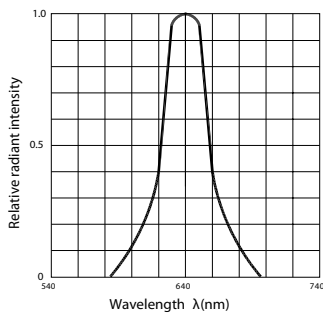


Fig.2 Forward current derating curve vs. Ambient temperature

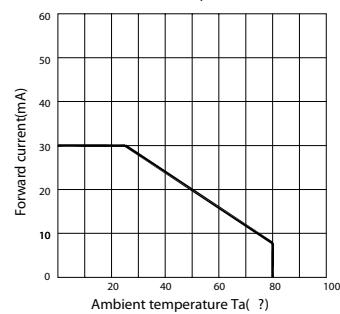


Fig.3 Forward current vs. Forward voltage

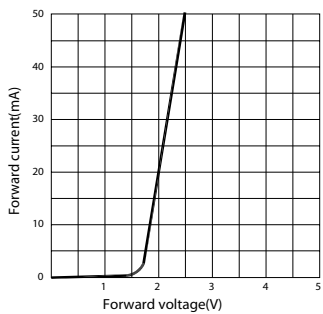


Fig.4 Relative luminous intensity vs. Ambient temperature

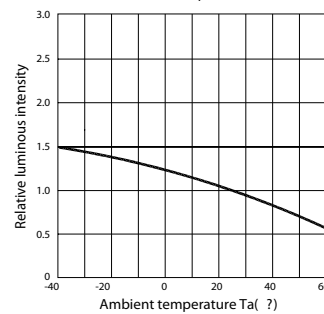


Fig.5 Relative luminous intensity vs. Forward current

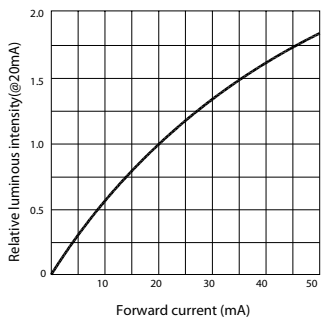


Fig.6 Radiation diagram

