

## 650 nm high-speed RCLED

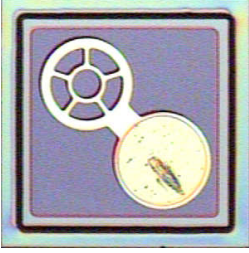
### RCLED-150

#### Part Number: RCLED-150

Applications: Home networking/Automotive plastic fiber networks

#### Absolute Maximum Ratings (T = 25°C):

Parameter	Symbol	Unit	Min.	Max.	Note
DC Forward Current	$I_{DCmax}$	mA		40	
Peak Pulsed Current <sup>1</sup>	$I_{pulsemax}$	mA		70	
Reverse Voltage	$V_r$	V	10		$I_r = -10\mu A$
Operating Temperature	$T_{op}$	°C	-40	85	
Storage Temperature	$T_{stg}$	°C	-40	95	
Maximum Die Exposure	$T_{max}$	°C		260	for 10 sec.



Notes:

1. Pulse width=10us, 10% duty circle

#### Electro-optical Characteristics (T = 25°C):

Parameter	Symbol	Unit	Min.	Typ.	Max.	Test Condition
Total radiant flux	$\Phi_o$	mW	0.3	0.6		$I_f = 30\text{ mA}$
Radiant intensity	$I_o$	mW/sr	0.08	0.2		$I_f = 30\text{ mA}$
Forward Voltage	$V_f$	V		2.0	2.3	$I_f = 30\text{ mA}$
Reverse current	$I_r$	$\mu A$			-10	$V_r = -5V$
Peak Wavelength <sup>(1)</sup>	$\lambda_p$	nm	640	650	660	$I_f = 30\text{ mA}$
Spectral width <sup>(1)</sup>	$\Delta\lambda$	nm	4	7		$I_f = 30\text{ mA}$ , FWHM
Beam Divergence	$\theta$	deg		100		$I_f = 30\text{ mA}$ , FWHM
Rise time/Fall time	$T_r/T_f$	ns			3.5	$I_f = 30\text{ mA}$ , 10%~90%
Data rate	$F_{data}$	Mbps	155			$I_f = 30\text{ mA}$
Temperature coefficient of wavelength	$\lambda_p / \Delta T$	nm/°C		0.08		$I_f = 30\text{ mA}$
Temperature coefficient of radiant intensity	$I_o / \Delta T$	%/°C		-0.9		$I_f = 30\text{ mA}$

Notes:

1. Measured in axial direction (solid angle 0.01sr)

Chip configuration:

1. Top contact: Anode; Bottom contact: Cathode.
2. Dimension: 200  $\mu m$  (width) x 200  $\mu m$  (length) x 130  $\mu m$  (thickness)  
Tolerance:  $\pm 12.5\mu m$
3. Bond pad size:  $\Phi 85\mu m$

Specifications are subjected to change without notice.  
Ver.5.0, Sep., 2008

## RCLED-150

Dimensions: (um)  
*All dimensions are nominal*

RCLED-150 chip dimension

