

SR65-1T001

650nm RCLED Chip

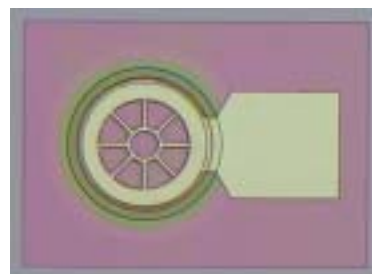
Features

- : 650 nm wavelength range
- : No threshold
- : Designed for POF data communications
- : Other configurations available on request

Applications

- : Data Link Communication
- : IEEE1394.b
- : Home Networking
- : Sensors

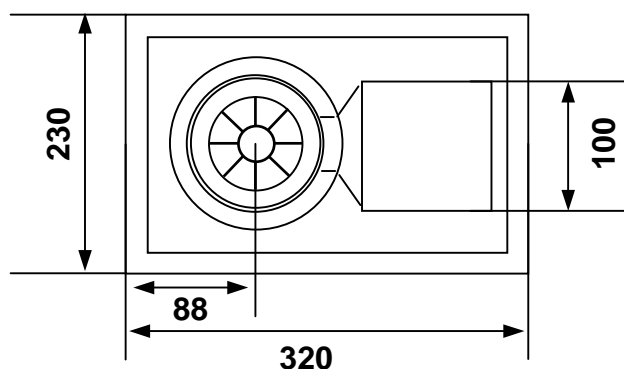
Description



Absolute Maximum Ratings (Tc=25°C)

Parameter	Rating
Storage Temperature	-40 to +100 °C
Operating Temperature	-20 to 70 °C
Lead Solder Temperature	260 °C, 10 sec
Continuous Forward Current	30mA
Continuous Reverse Voltage	5V (@10µA)

Dimensions



Unit: µm

Die Height: 200±15 µm

Electro-Optics Characteristics (T_a=25°C unless otherwise stated)

Parameters	Symbol	Specified			Unit	Test Conditions
		Min.	Typ.	Max.		
Total Radiant Flux	Φ_o	1.1	1.6	2.2	mW	I _f =20mA *
Radiant Intensity	P _o	0.3	0.6	0.9	mW/sr	I _f =20mA**
Peak Wavelength	λ_P	640	650	660	nm	I _f =20mA**
Spectral Width	$\Delta\lambda$		7		nm	T _a =0 to 70 °C at 20mA**
Beam Divergence	Θ		90		Deg.	I _f =20mA, FWHM
Forward Voltage	V _f		2.0	2.2	V	I _f =20mA
Rise Time / Fall Time	t _R / t _F		3/3		ns	I _f =20mA, (10% - 90%)
Data Rate	T _{Data}		155		Mbps	I _f =20mA

Test Data were measured in TO header of wire bonded chip

* Measured in integrating sphere

** Measured in axial direction (0.001sr)

*** Value is referenced to the vender's measurement system (correlation to customer product is required).

Thermal Characteristics

Parameters	Symbol	Specified			Unit	Test Conditions
		Min.	Typ.	Max.		
P _o Temp Coefficient	$\Delta P_o / \Delta T$		-0.6		%/ °C	-20 °C ~ 70 °C at I _f =20mA
λ_P Temp Coefficient	$\Delta\lambda / \Delta T$		0.07		nm/ °C	-20 °C ~ 70 °C at I _f =20mA

Notes

* These specifications are subject to change without notice.

NOTICE

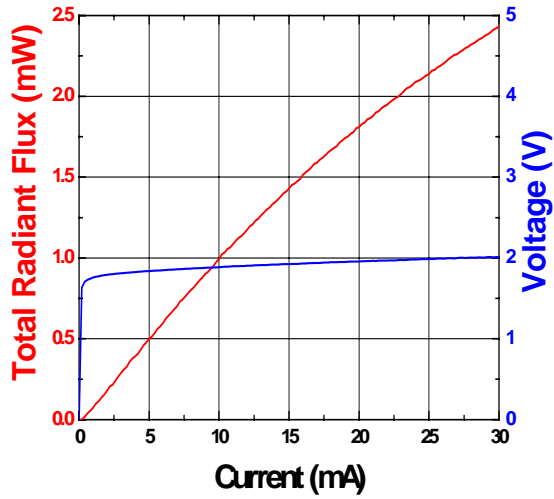
The inherent design of this component causes it to be sensitive to electrostatic discharge(ESD). To prevent ESD-induced damage and/or degradation to equipment, take normal ESD precautions when handling this product

DANGER

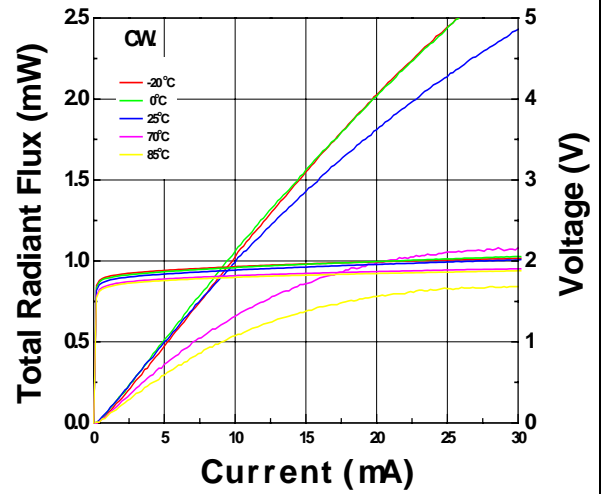
The RCLED should be treated as a potential eye hazard. Due to the size of the component, the applicable warning logotype, aperture label, and certification / identification label cannot be placed on the component itself.

Characteristics Curves

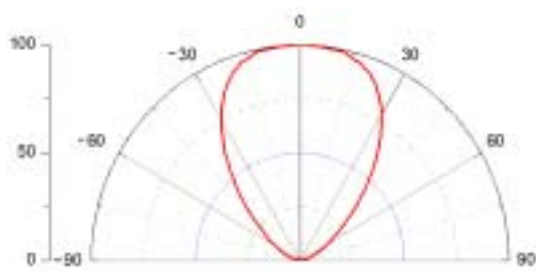
LIV Curve



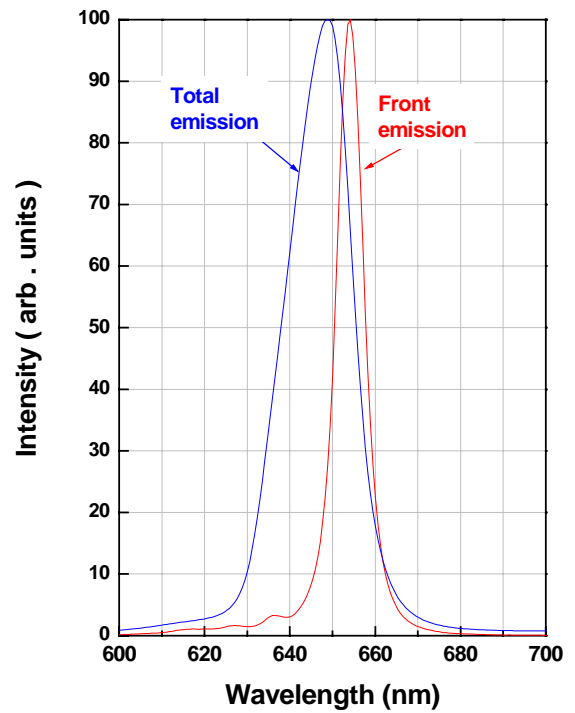
LIV vs Temperature



Angular Radiation



EL Spectrum



Eye Diagram

