

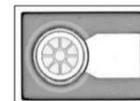


RCLC-65A155M

155Mb/s 650nm RCLED Chip

Description

The Lasermate RCLC-65A155M is a high-performance 650nm resonant cavity light emitting diode (RCLED) chip specifically designed for plastic optical fiber (POF) data communication systems. With no threshold and high efficiency, the device is optimized for cost-effective, short-reach communication and sensing applications.



Features

- 650nm RCLED chip
- Supports 155Mb/s data rate
- No threshold operation
- Optimized for POF data communication

Applications

- POF data link communication
- IEEE 1394.b
- Home networking
- Optical sensors

Specifications

Absolute Maximum Ratings				
Parameters	Min.	Max.	Unit	Conditions
Storage temperature	-40	100	°C	
Operating temperature	-20	70	°C	
Continuous Forward Current		30	mA	
Continuous Reverse Voltage		5	V	10uA

Electro-Optical Characteristics (T _a =25°C unless otherwise stated)						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
Total Radiant Flux	Φ _o		1	1.5	mW	I _f =20mA*
Radiant Intensity	P _o	0.2	0.3		mW/sr	I _f =20mA**
Peak Wavelength	λ _p	640	650	660	nm	I _f =20mA**
Spectral Width	Δλ		7		nm	T _a =0 to 70°C at 20mA**
Beam Divergence	Θ		90		°	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

Notes: Test Data were measured in TO-header of wire bonded chip.

*Measured in integrating sphere

**Measured in axial direction (0.01sr)

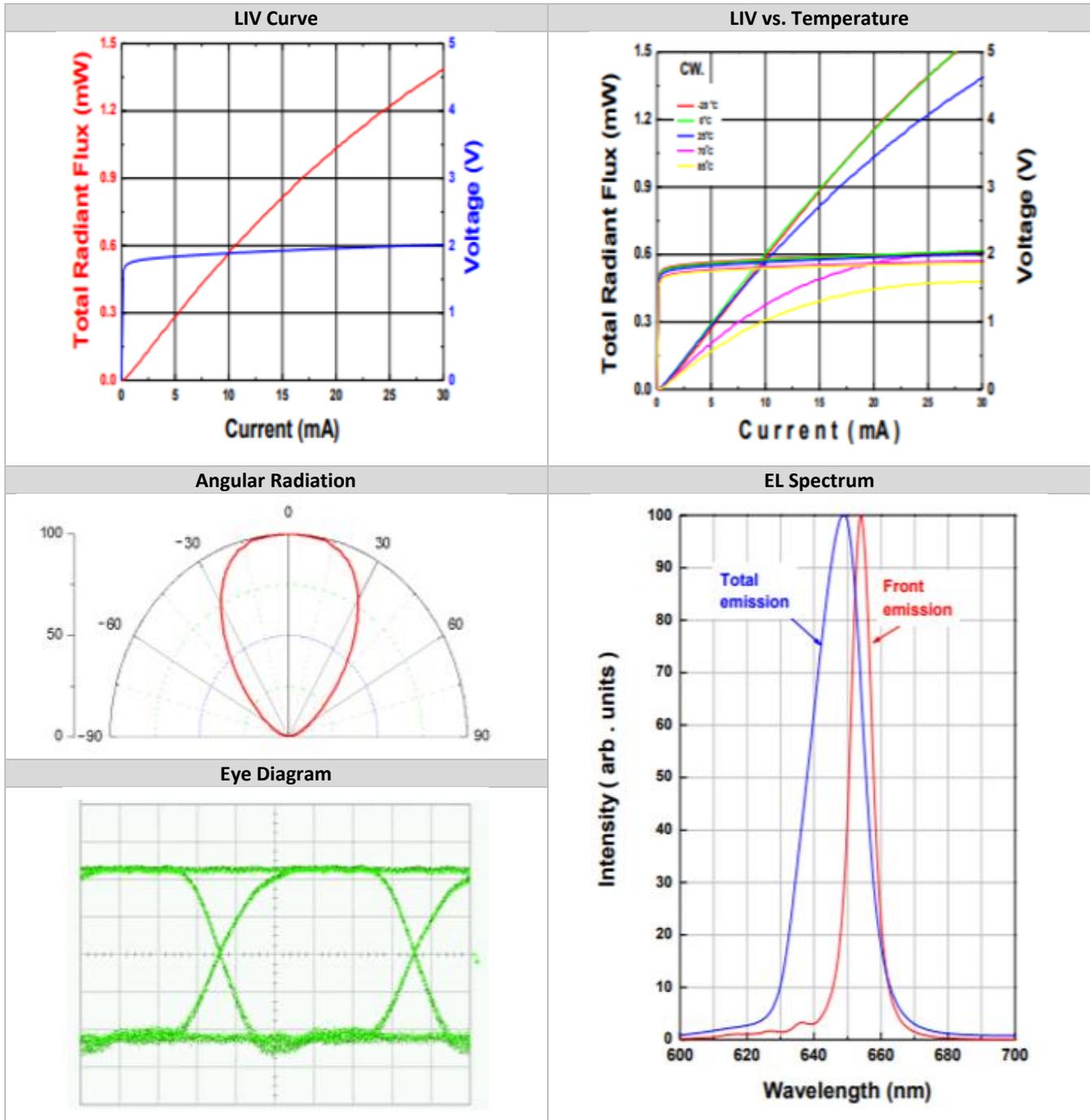
***Value is referenced to the vender's measurement system (correlation to customer product is required).

Thermal Characteristics						
Parameters	Symbol	Min.	Typ.	Max.	Unit	Conditions
P _o Temperature Coefficient	Δ P _o /ΔT		-0.6		%/°C	T _a =-20 to 70°C at I _f =20mA
λ _p Temperature Coefficient	Δλ/ΔT		0.07		nm/°C	T _a =-20 to 70°C at I _f =20mA

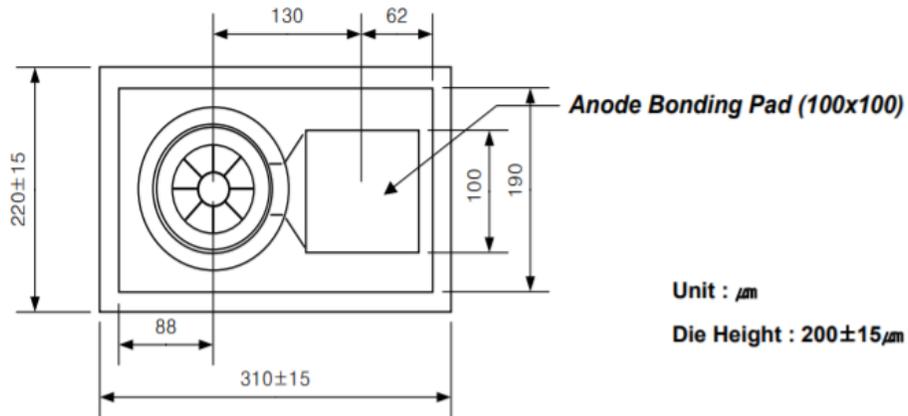
Lasermate Group, Inc. – The Friend of Lasers

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Typical Characteristics



Outline Dimensions



Additional Notes

- 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.
- Specifications are subject to change without notice.