

Peak Wavelengths: 810,1040,1200,1460,1550,1720, 2300nm

The ILA8123L38-SU is a SWIR multi-chip emitter designed for applications requiring various emission sources in a small, densely packaged area. These devices can be custom designed for specific wavelengths and outputs.

FEATURES

- > Hermetically Sealed TO-5 Metal Can Package
- > Various Wavelength Combinations Available
- > High Output Power

APPLICATIONS

- > Spectroscopy
- > Medical / Chemical Analysis
- > Biofluorescence Analysis



Absolute Maximum Ratings (Ta=25°C)



ITEMS	SYMBOL	RATINGS							UNIT
		810	1040	1200	1460	1550	1720	2300	
Forward Current (DC)	IF	50	50	50	50	50	50	100	mA
Forward Current (Pulse) *1	IFP	0.5	0.5	0.5	0.5	0.5	0.5	1.0	A
Reverse Voltage	VR	5	5	5	5	5	5	5	V
Power Dissipation	PD	85	70	60	60	60	60	55	mW
Operating Temperature Range	Topr	-20~+85							°C
Storage Temperature Range	Tstg	-30~+100							°C
Junction Temperature	Tj	100							°C
Lead Soldering Temperature *2	Tls	260							°C

1: Tw=10μsec, T=10msec. *2: Time 5 Sec max; Position: Up to 3mm from the body.

Electrical & Optical Characteristics (Ta=25°C)

ITEMS	SYMBOL	WAVELENGTH	CONDITIONS	MIN	TYP	MAX	UNIT
Forward Voltage	VF	810	IF=50mA	--	1.63	--	V
Forward Voltage	VF	1040	IF=50mA	--	1.32	--	V
Forward Voltage	VF	1200	IF=50mA	--	1.10	--	V
Forward Voltage	VF	1460	IF=50mA	--	1.02	--	V
Forward Voltage	VF	1550	IF=50mA	--	1.04	--	V
Forward Voltage	VF	1720	IF=50mA	--	0.95	--	V
Forward Voltage	VF	2300	IF=100mA	--	0.48	--	V
Power Output	PO	810	IF=50mA	--	20.8	--	mW
Power Output	PO	1040	IF=50mA	--	11.0	--	mW
Power Output	PO	1200	IF=50mA	--	5.5	--	mW
Power Output	PO	1460	IF=50mA	--	3.2	--	mW
Power Output	PO	1550	IF=50mA	--	2.6	--	mW

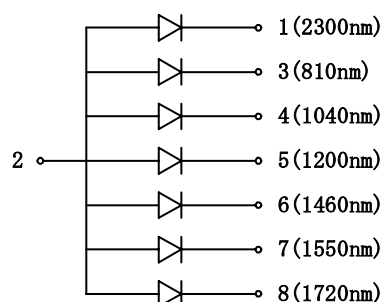
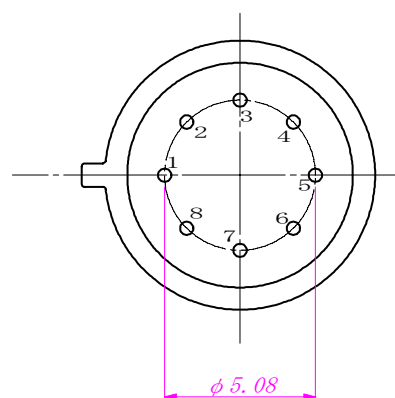
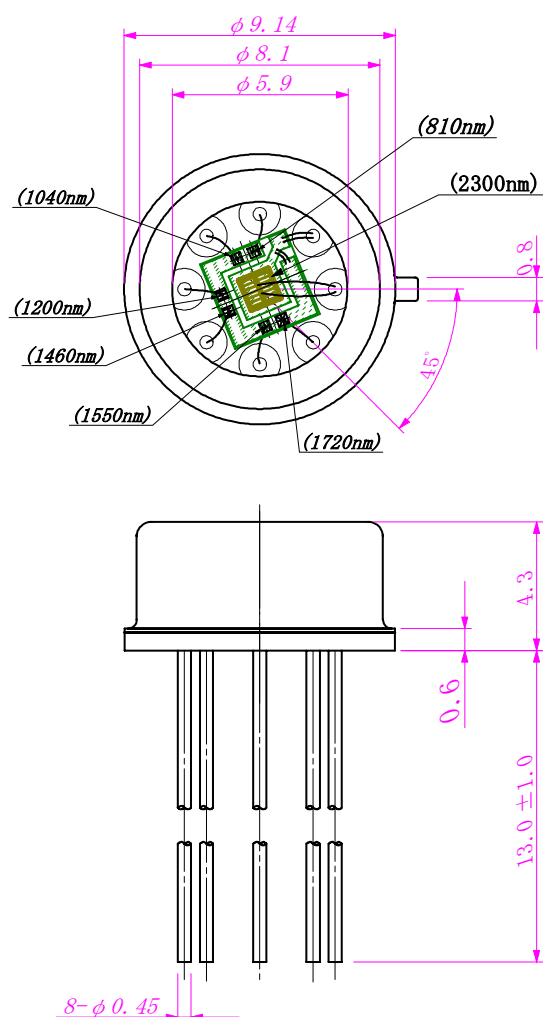
Electrical & Optical Characteristics (Ta=25°C)

ITEMS	SYMBOL	WAVELENGTH	CONDITIONS	MIN	TYP	MAX	UNIT
Power Output	PO	1720	IF=50mA	--	2.3	--	mW
Power Output	PO	2300	IF=100mA	--	0.1	--	mW
Peak Emission Wavelength	λ_p	810	IF=50mA	--	810	--	nm
Peak Emission Wavelength	λ_p	10400	IF=50mA	--	1040	--	nm
Peak Emission Wavelength	λ_p	1200	IF=50mA	--	1200	--	nm
Peak Emission Wavelength	λ_p	1460	IF=50mA	--	1460	--	nm
Peak Emission Wavelength	λ_p	1550	IF=50mA	--	1550	--	nm
Peak Emission Wavelength	λ_p	1720	IF=50mA	--	1740	--	nm
Peak Emission Wavelength	λ_p	2300	IF=100 mA	--	2300	--	nm
Spectral Line Half Width	$\Delta\lambda$	810	IF=50mA	--	25	--	nm
Spectral Line Half Width	$\Delta\lambda$	1040	IF=50mA	--	40	--	nm
Spectral Line Half Width	$\Delta\lambda$	1200	IF=50mA	--	65	--	nm

Electrical & Optical Characteristics (Ta = 25°C)

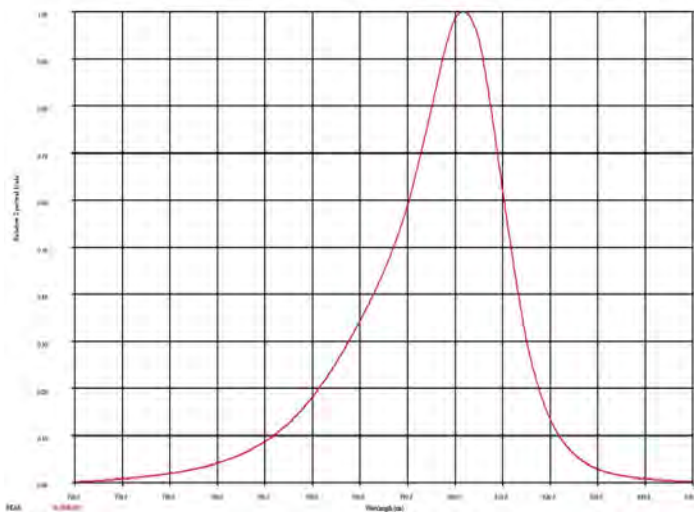
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Spectral Line Half Width	$\Delta\lambda$	1460	IF=50mA	--	115	--	nm
Spectral Line Half Width	$\Delta\lambda$	1550	IF=50mA	--	120	--	nm
Spectral Line Half Width	$\Delta\lambda$	1720	IF=50mA	--	140	--	nm
Spectral Line Half Width	$\Delta\lambda$	2300	IF=100 mA	--	170	--	nm
Breakdown Voltage	VR	IR=10u A	3.0	--	--	V	
Half Intensity Beam Angle	Θ	IF=50mA	--	±55	--	deg	

Package Dimensions

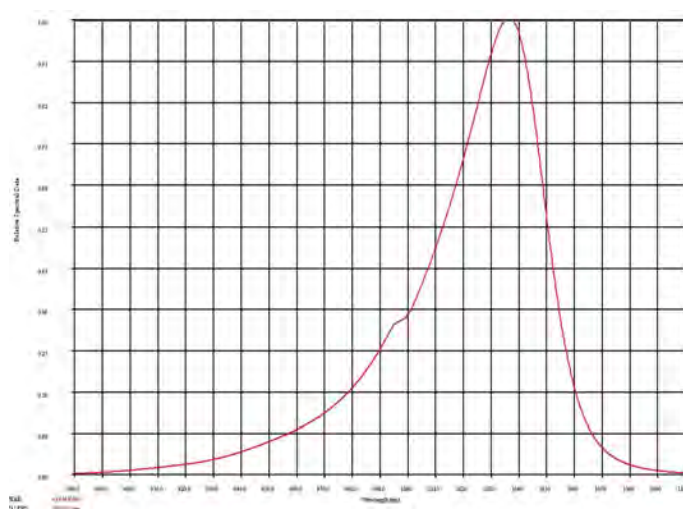


- 1- 2300nm Cathode
- 2- LED Anode com
- 3- 810nm Cathode
- 4- 1040nm Cathode
- 5- 1200nm Cathode
- 6- 1460nm Cathode
- 7- 1550nm Cathode
- 8- 1720nm Cathode

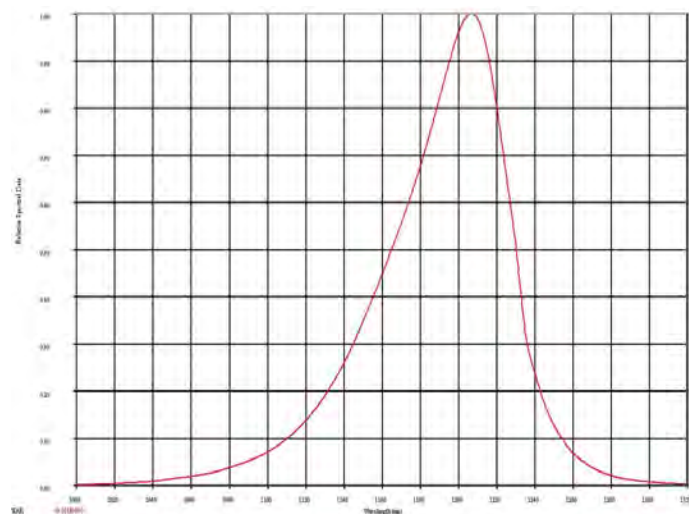
810nm Spectral Response



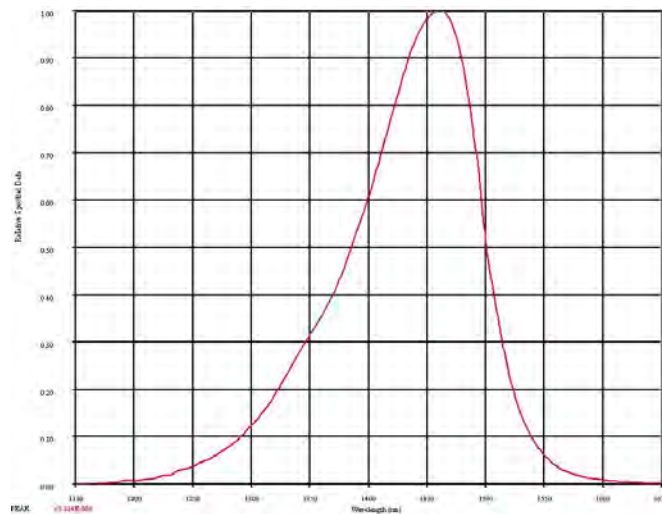
1040nm Spectral Response



1200nm Spectral Response



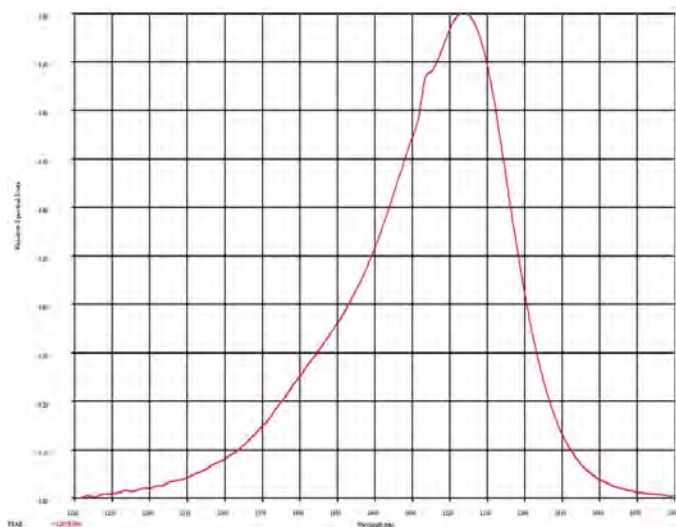
1460nm Spectral Response



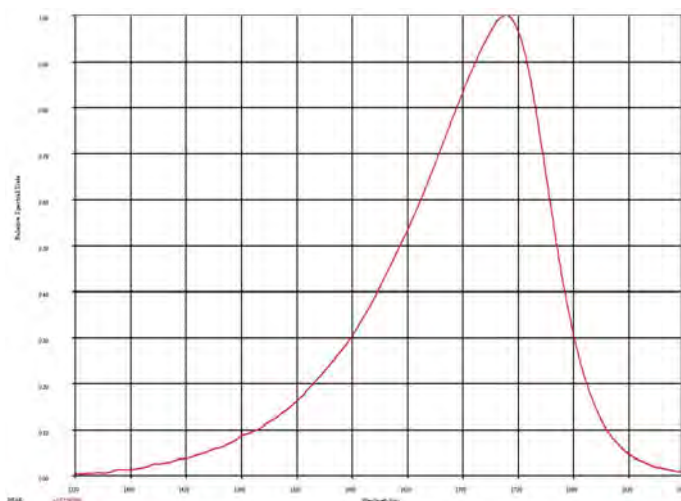
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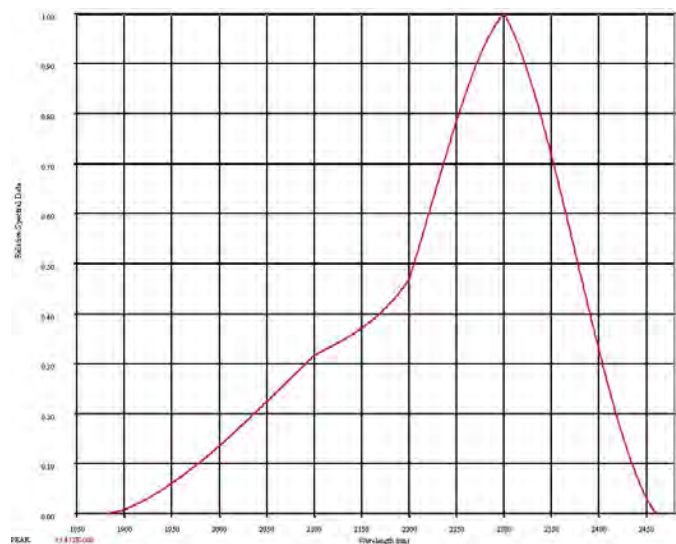
1550nm Spectral Response



1720nm Spectral Response



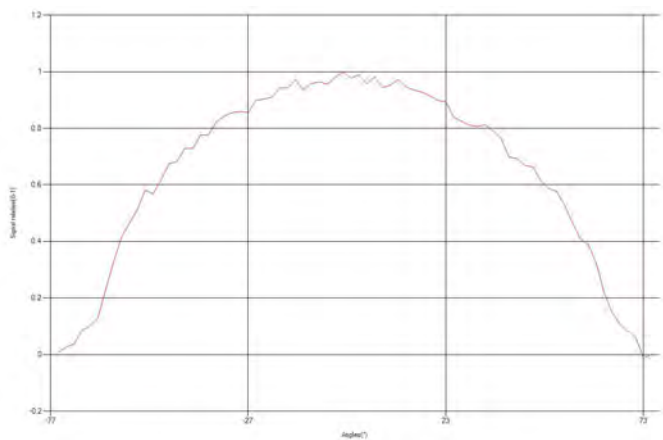
2300nm Spectral Response



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Radiation Pattern



View Angle

