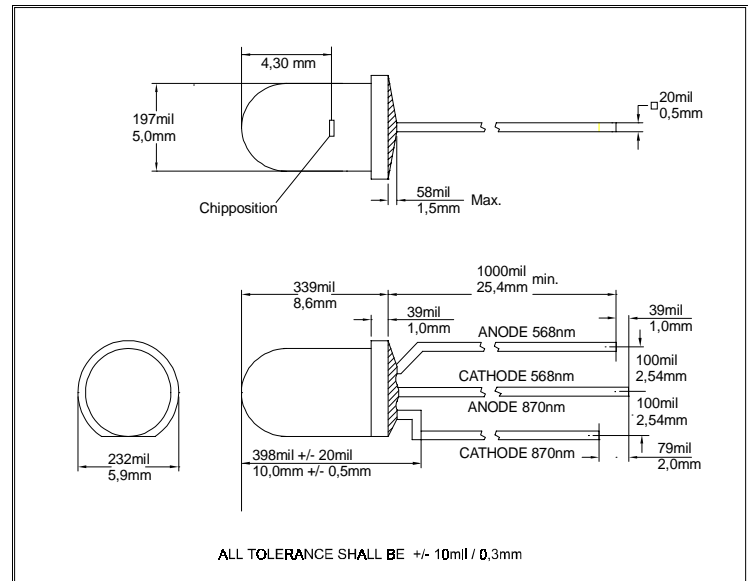


## DualWavelength LED

## 870nm/568nm FQR4801

### Features

- \* Standard design LED for special purpose  
Based on double hetero structure of GaAlAs
- \* 1.LED=870nm / 2. LED = 568nm
- \* Water-clear package style with stand-off
- \* Three lead T1 3/4 case with serial connected Chips
- \* Application : Spectral analysis  
IR/Green-Flash-Lights  
Medical instruments  
CCD-Illumination



### Electrical and optical characteristics and absolute maximum ratings ( Ta=25°C unless otherwise noted )

Symbol	Parameter	MIN	Typ	MAX	Unit	Test conditions
I <sub>F</sub>	DC Forward current			100	mA	1. LED
I <sub>F</sub>	DC Forward current			30	mA	2. LED
I <sub>PEAK</sub>	Peak Forward current 1. LED			1500	mA	T <sub>p</sub> < 10μsec. ; T <sub>s</sub> =1:100 ; R <sub>therm</sub> < 100 K/W
I <sub>PEAK</sub>	Peak Forward current 2. LED			300	mA	T <sub>p</sub> < 10μsec. ; T <sub>s</sub> =1:100 ; R <sub>therm</sub> < 100 K/W
V <sub>F</sub>	Forward Voltage	1,3	1,7	2,1	V	I <sub>F</sub> = 50mA 1.LED
V <sub>F</sub>	Forward Voltage	2,1	2,25	2,3	V	I <sub>F</sub> = 20mA 2.LED
V <sub>R</sub>	Reverse Voltage	5			V	I <sub>rev</sub> = 100μA 1.LED/ 2.LED
λ <sub>Peak</sub>	Peak Wavelength	860	870	890	nm	I <sub>F</sub> = 50mA 1.LED
λ <sub>Peak</sub>	Peak Wavelength	560	568	575	nm	I <sub>F</sub> = 20mA 2.LED
Δλ <sub>0,5</sub>	Bandwidth of half power	25	30		nm	I <sub>F</sub> = 50mA , both LED's
t <sub>f/r</sub>	Fall time / Rise time		20		ns	I <sub>F</sub> = 100mA 1.LED
t <sub>f/r</sub>	Fall time / Rise time		500		ns	I <sub>F</sub> = 100mA 2.LED
F <sub>E</sub>	Total Power Output	9	16		mW	I <sub>F</sub> = 50mA 1.LED
I <sub>E</sub>	Radiant Intensity	45	90		mW/sr	I <sub>F</sub> = 50mA 1.LED
F <sub>E</sub>	Total Power Output	0,09	0,15		mW	I <sub>F</sub> = 20mA 2.LED
I <sub>v</sub>	Luminous intensity	180	350		mcd	I <sub>F</sub> = 20mA 2.LED
2Φ <sub>0,5</sub>	Emission Angel horizontal	30	35		deg.	Φ <sub>E</sub> / I <sub>v</sub> = 50%; I <sub>F</sub> =20mA
2Φ <sub>0,5</sub>	Emission Angel vertical	30	60		deg.	Φ <sub>E</sub> / I <sub>v</sub> = 50%; I <sub>F</sub> =20mA
TK <sub>VF</sub>	Temp.Coeff. of Forward Voltage		- 2		mV/K	
TK <sub>F</sub>	Temp.Coeff. of Radiant Power		- 0,4		%/K	
T <sub>Operating</sub>	Operating Temperature	- 25		85	°C	
T <sub>Storage</sub>	Storage Temperature	- 25		85	°C	
T <sub>Soldering</sub>	Soldering Temperature			260	°C	2mm from case @5 sec.
Θ <sub>j-PIN</sub>	Thermal Resistance		450		K/W	
P <sub>tot</sub>	Total Power Dissipation			230	mW	derate above 45°C 2,5mW/K

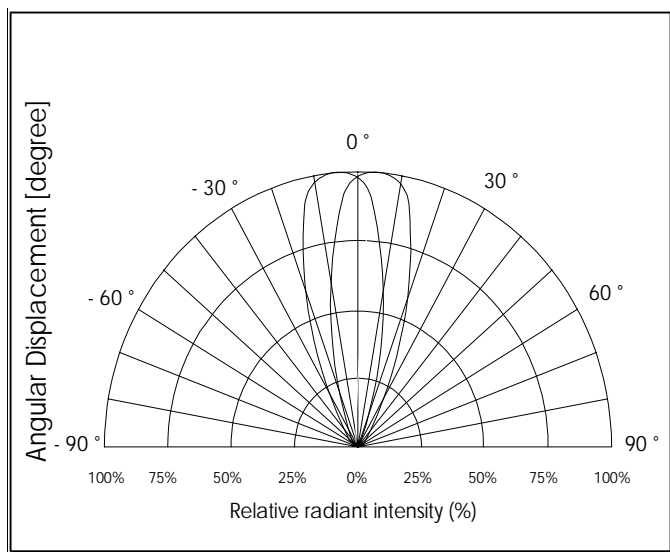
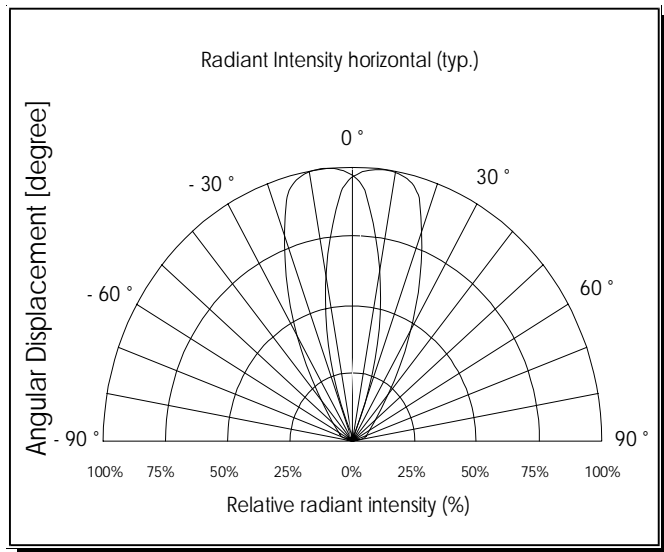
### Order Informations :

Asked us for : FQR4801 Bulk  
FQR4801TR Taped on Reel / 1000 pcs. standard reel  
FQR4801TA Taped in AMMOPACK /2000 pcs.

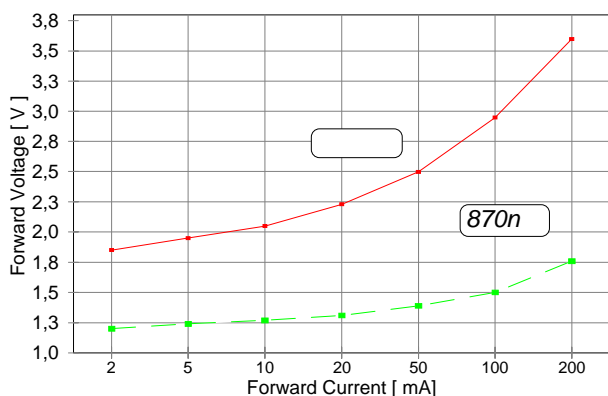
Fietje reserves the right to make changes at any time in order to improve design and to supply the best product possible, contact Fietje for latest device specification sheets before using.

# DualWavelength LED

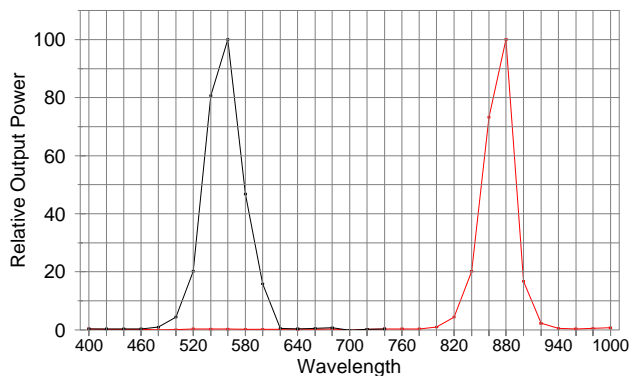
# 870nm/568nm FQR4801



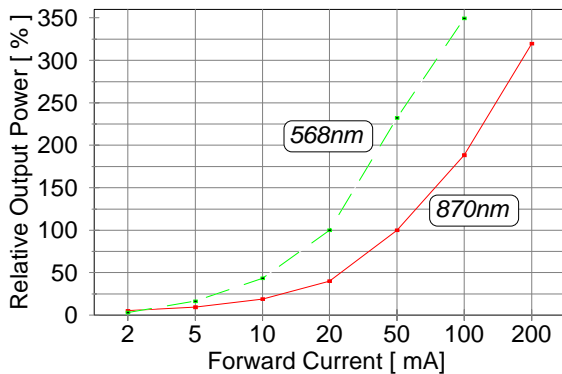
Forward Voltage  $V_f = f(I_f)$  typ.



Relativ Spectral Emission



Relative Output Power (typ.)



Relative Radiant Output Power (typ.)

