

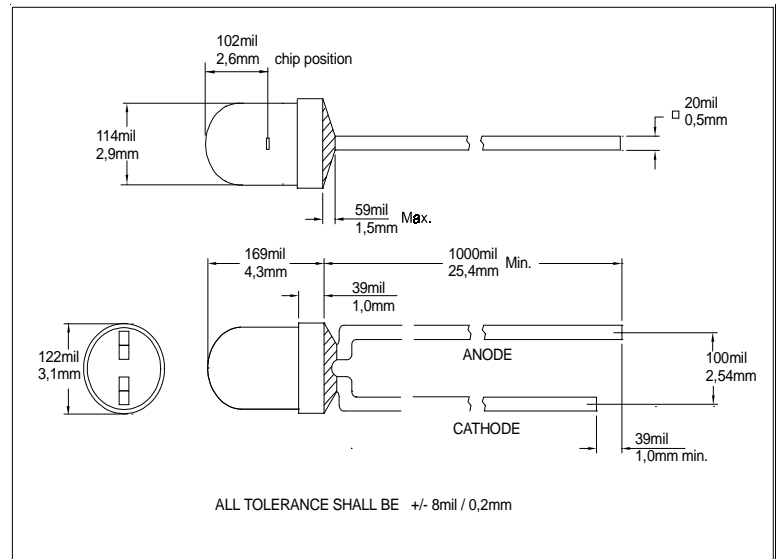
# URED

805nm/40ns/30°

FQT5401

## Features

- \* Standard design LED for general purpose  
Based on double hetero structure of GaAIAs
- \* Fast switching time : typical <40ns
- \* High power for T1 case with 30° full angle
- \* Water-clear package style without stand-off
- \* Application : Open-Air communication / IrDa  
IR-Flash-Lights  
Medical instruments  
Light interrupter and switches  
CCD-Illumination  
Night vision and security systems



## 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	
I <sub>PEAK</sub>	Peak Forward current			1500	mA	T <sub>p</sub> < 10μsec. ; T=1:100 ; R <sub>therm</sub> < 100 K/W
V <sub>F</sub>	Forward Voltage	1,3	1,5	2,1	V	I <sub>F</sub> = 50mA
V <sub>R</sub>	Reverse Voltage	5			V	I <sub>rev</sub> = 100μA
λ <sub>Peak</sub>	Peak Wavelength	800	805	810	nm	I <sub>F</sub> = 50mA
Δλ <sub>0,5</sub>	Bandwidth of half power	25	30		nm	I <sub>F</sub> = 50mA
t <sub>f</sub>	Fall time		40		ns	I <sub>F</sub> = 100mA
t <sub>r</sub>	Rise time		40		ns	I <sub>F</sub> = 100mA
F <sub>E</sub>	Total Power Output	8	14		mW	I <sub>F</sub> = 50mA
I <sub>E</sub>	Radiant Intensity				mW/sr	I <sub>F</sub> = 100mA
A	Chip size		0,13		mm <sup>2</sup>	Chip size : 360μmX360μm
2θ <sub>0,5</sub>	Emission Angel	30	35	40	deg.	F <sub>E</sub> = 50%
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.
Q <sub>j-PIN</sub>	Thermal Resistance		450		K/W	
P <sub>tot</sub>	Total Power Dissipation			210	mW	derate above 45°C 2,5mW/K

Order Informations :

FQT5401

Bulk

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.