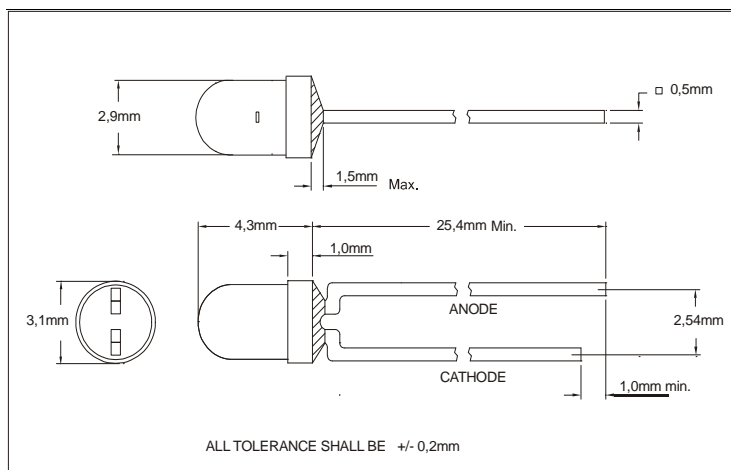


**Infrared LED****870nm****FQT5552AHA****Features**

- \* Standard design LED for general purpose  
Based on double hetero structure of GaAlAs
- \* Fast switching time : typical <20ns
- \* High cut-off frequency of >20Mhz @ -3dB
- \* High-Power for T1 case with 34° full angle
- \* Water-clear package style without stand-off
- \* Application : Open-Air communication / IrDa  
IR-Flash-Lights  
Medical instruments  
Light interrupter and switches

**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 BINA	1,3		1,5	V	I <sub>F</sub> = 100mA
V <sub>F</sub>	Forward Voltage BINB	1,5		1,7	V	I <sub>F</sub> = 100mA
V <sub>F</sub>	Forward Voltage BIN C	1,7		2,1	V	I <sub>F</sub> = 100mA
V <sub>R</sub>	Reverse Voltage	5			V	I <sub>rev</sub> = 100μA
λ <sub>Peak</sub>	Peak Wavelength	860	870	885	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		20		ns	I <sub>F</sub> = 100mA
t <sub>r</sub>	Rise time		20		ns	I <sub>F</sub> = 100mA
Φ <sub>E</sub>	Total Power Output	42	46		mW	I <sub>F</sub> = 100mA
I <sub>E</sub>	Radiant Intensity	75		100	mW/sr	I <sub>F</sub> = 100mA
A	Chip size		0,13		mm <sup>2</sup>	Chip size : 360μmX360μm
2Φ <sub>0,5</sub>	Emission Angle	30	34	40	deg.	Φ <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	5mm from case @5 sec.
Θ <sub>j-PIN</sub>	Thermal Resistance		450		K/W	
P <sub>tot</sub>	Total Power Dissipation			200	mW	derate above 45°C 3,5mW/K

\* values only for information

All optical measurements are based on accuracy of +/-11%.

Order Informations :

FQT5552AHA-XX--BU  
FQT5552AHA-XX--TRBulk (1000 pcs./Bag)  
Taped and Reeled (3000pcs./reel)  
(AMMOPACK on request only)

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.