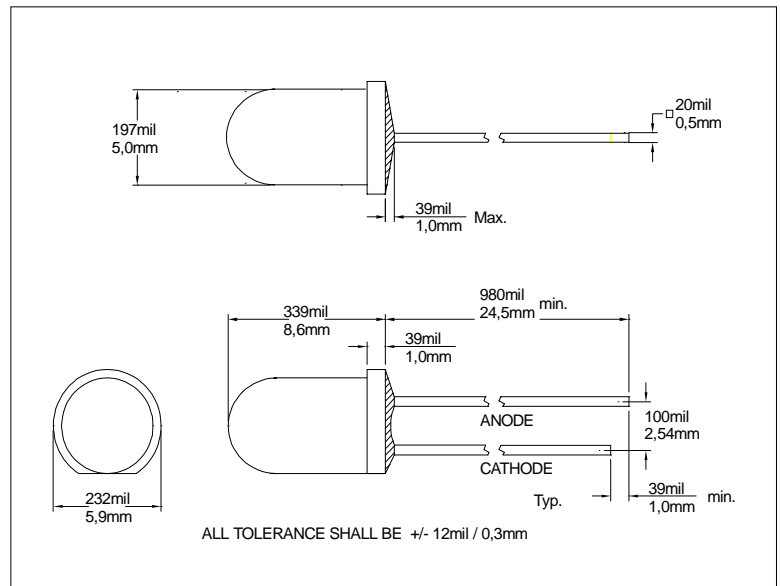


Infrared Light Emitting Diode IRED

870nm/20ns FQR5557

Features

- * Standard design LED for general purpose
Based on double hetero structure of GaAIAs
- * Special construction with internal Diffusor
- * Fast switching time : typical <20ns
- * High cut-off frequency of >20Mhz @-3dB
- * High power for T1 3/4 case with 40° 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 _F	DC Forward current			100	mA	
I _{PEAK}	Peak Forward current			1500	mA	T _p < 10μsec. ; T=1:100 ; R _{therm} < 100 K/W
V _F	Forward Voltage FQR5557	1,3	1,5	1,9	V	I _F = 150mA T _p =1ms
V _R	Reverse Voltage	5			V	I _{rev} = 100μA
λ _{Peak}	Peak Wavelength	860	870	885	nm	I _F = 50mA
Δλ _{0,5}	Bandwidth of half power	25	30		nm	I _F = 50mA
t _f	Fall time		20		ns	I _F = 100mA
t _r	Rise time		20		ns	I _F = 100mA
F _E	Total Power Output	32	38		mW	I _F = 100mA
I _E	Radiant Intensity		TDB		mW/sr	I _F = 100mA
D	Diameter of light emitting point		4,5		mm	I _F = 20mA, 63% of radiant output (IEC825)
A	Chip size		0,13		mm ²	Chip size : 360μmX360μm
2Φ _{0,5}	Emission Angel		40		deg.	Φ _E = 50%
TK _{VF}	Temp.Coeff. of Forward Voltage		- 2		mV/K	
TK _F	Temp.Coeff. of Radiant Power		- 0,4		%/K	
T _{Operating}	Operating Temperature	- 25		85	°C	
T _{Storage}	Storage Temperature	- 25		85	°C	
T _{Soldering}	Soldering Temperature			260	°C	2mm from case @ 5 sec.
Θ _{j-PIN}	Thermal Resistance		450		K/W	
P _{tot}	Total Power Dissipation			230	mW	derate above 45°C 2,5mW/K

Order Informations : FQR5557 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.