



# LED18FC-TEC



## TECHNICAL DATA

### Mid-Infrared Light Emitting Diode, Flip-Chip Design

Light Emitting Diodes with central wavelength 1.85  $\mu\text{m}$  series are based on heterostructures grown on GaSb substrates by LPE. Solid solutions AlGaAsSb are used in the active layer. Wide band gap solid solutions AlGaAsSb with Al content 64% are used for good electron confinement. LED18FC-TEC has a stable output power and a lifetime more than 80000 hours.

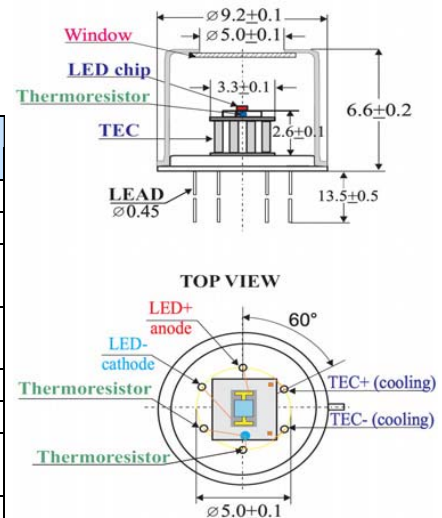
#### Features

- Structure: GaInAsSb/AlGaAsSb, Flip-Chip Design
- Peak Wavelength: typ. 1.85  $\mu\text{m}$
- Optical Output Power: typ. 0.9 mW qCW
- Package: TO-5, with TEC, thermistor and window

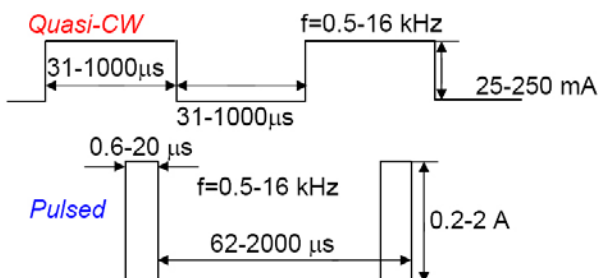


#### Specifications

Item	Condition	Rating			Unit
		Min.	Typ.	Max.	
Peak Wavelength	T=300 K	1.80	1.85	1.89	$\mu\text{m}$
FWHM	150 mA CW	100	150	200	nm
Quasi-CW Optical Power	200 mA qCW	0.7	0.9	1.4	mW
Pulsed Optical Power	1 A	15	20	35	mW
Switching Time	T=300 K	10	20	30	ns
Operation Voltage	200 mA qCW				V
Operating Temperature		-240 ... +50			$^{\circ}\text{C}$
Emitting Area		670x770			$\mu\text{m}$
Soldering Temperature		180			$^{\circ}\text{C}$
Package	TO-5, with built-in thermocooler, thermoresistor, with cap and quartz window				



#### Operating Regime



#### Quasi-CW

- Maximum current 220 mA
- Recommended current 150-200mA

#### Pulsed

- Maximum current 1 A (puls length 500 ns, repetition rate 2kHz)



## Typical Performance Curves

