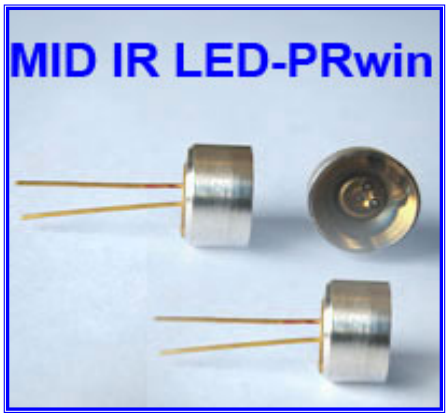
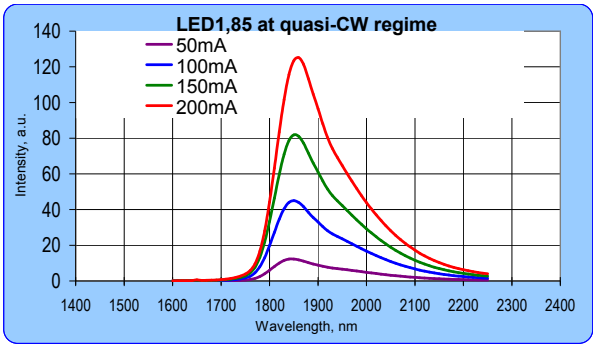
Mid-Infrared Light Emitting Diode 1,85 μm

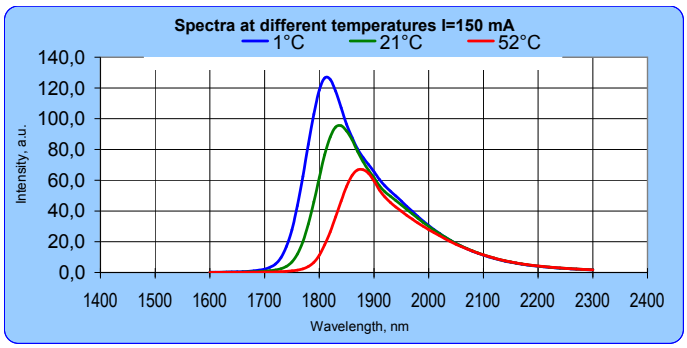


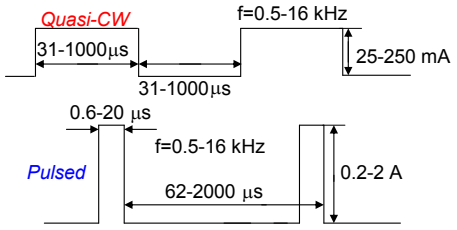
Light Emitting Diodes with central wavelength 1,85 μm series are based on heterostructures grown on GaSb substrates by LPE. Solid solutions GaInAsSb are used in the active layer. Wide band gap solid solutions AlGaAsSb with Al content 64% are used for good electron confinement.

Parameters	Units	Conditions	Ratings		
			Min	Typ	Max
Peak emission wavelength	μm	T=300 K	1,83	1,85	1,87
FWHM of the emission band	nm	150 mA CW	100	150	200
Quasi-CW Optical Power	mW	200 mA qCW	0,7	0,9	1,1
Pulsed Optical Power	mW	1 A	15	20	25
Switching Time	ns	T=300 K	10	20	30
Operating Temperature Range, °C	-240° ÷ +50°				
Emitting Area, μm	300x300				
Soldering temperature	260 °C				

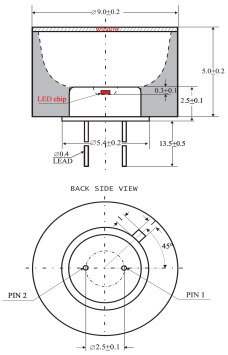
Package	
TO-18 with a non-removable cap with a window	MID IR LED
TO-18 with a parabolic reflector without a window	MID IR LED-PR
TO-18 with a parabolic reflector with a window	**MID IR LED-PRwin**
TO-5 with a built-in thermocooler and thermoresistor, covered by a cap with a window	MID IR LED-TEC
TO-5 with a built-in thermocooler and thermoresistor, covered by a parabolic reflector with a window	MID IR LED-TEC-PR

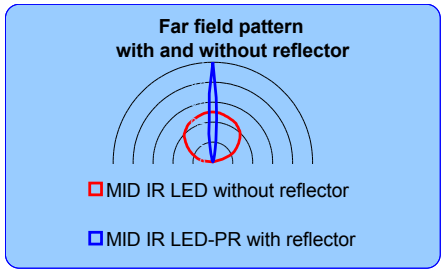


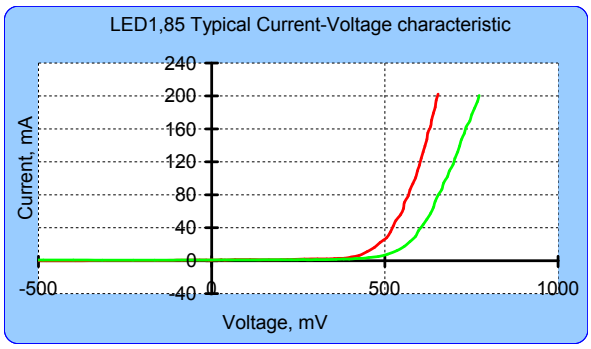


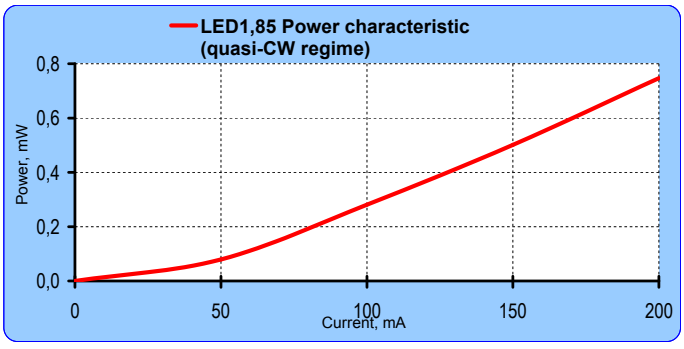


Maximum current is 220 mA at quasi-CW
Maximum pulsed current is 1 A (duration 500 ns, repetition rate 2 kHz)
Optimal operating current is 150-200 mA at quasi-CW.









RELATED PRODUCTS

PD24 series Photodiodes can be used for detecting LED emission
PD25 series Photodiodes can be used for detecting LED emission
LED driver D-31M can be used for LED power supply in quasi-CW and pulse modes
LED driver mD-1c can be used for LED power supply in a quasi-CW mode
LED driver mD-1p can be used for LED power supply in a pulse mode

IBSG Co., Ltd., 26 Polytechnicheskaya str., St-Petersburg, 194021 RUSSIA, ns@iropt6.ioffe.ru, www.ibsg-st-petersburg.com