

# Distributed Bragg Reflector Laser

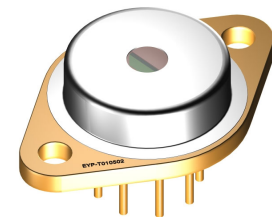
GaAs Semiconductor Laser Diode



## Absolute Maximum Ratings

	Symbol	Unit	min	typ	max
Operational Temperature at case	$T_C$	°C			50
Forward Current	$I_F$	mA			250
Reverse Voltage	$V_R$	V			0

Stress in excess of the Absolute Maximum Ratings can cause permanent damage to the device. Operation at the Absolute Maximum Rating for extended periods of time can adversely affect the device reliability and may lead to reduced operational life.



## Recommended Operation Conditions

	Symbol	Unit	min	typ	max
Operational Temperature at case	$T_{case}$	°C	15		40
Forward Current	$I_F$	mA			200

## Characteristics at $T_{amb}$ 25°C

Parameter	Symbol	Unit	min	typ	max	Measurement Condition
Center Wavelength	$\lambda_C$	nm	1061	1063	1064	
Spectral Width (FWHM)	$\Delta\nu$	MHz			10	
Temp. Coeff. of Wavelength	$TC_\lambda$	nm / K		0,06		
Output Power	$P_{opt}$	mW		100	120	
Slope Efficiency	$\eta_d$	W / A	0,6	0,8	0,9	
Threshold Current	$I_{th}$	mA	40	50	70	
Operational Current @ 100 mW	$I_{Op}$	mA		200	250	
Cavity Length	$l_C$	$\mu\text{m}$		2000		
Divergence parallel (FWHM)	$\Theta_{  }$	°		10		
Divergence perpendicular (FWHM)	$\Theta_{\perp}$	°		33		
Polarization				TE		
Mode Structure			Fundamental Mode			

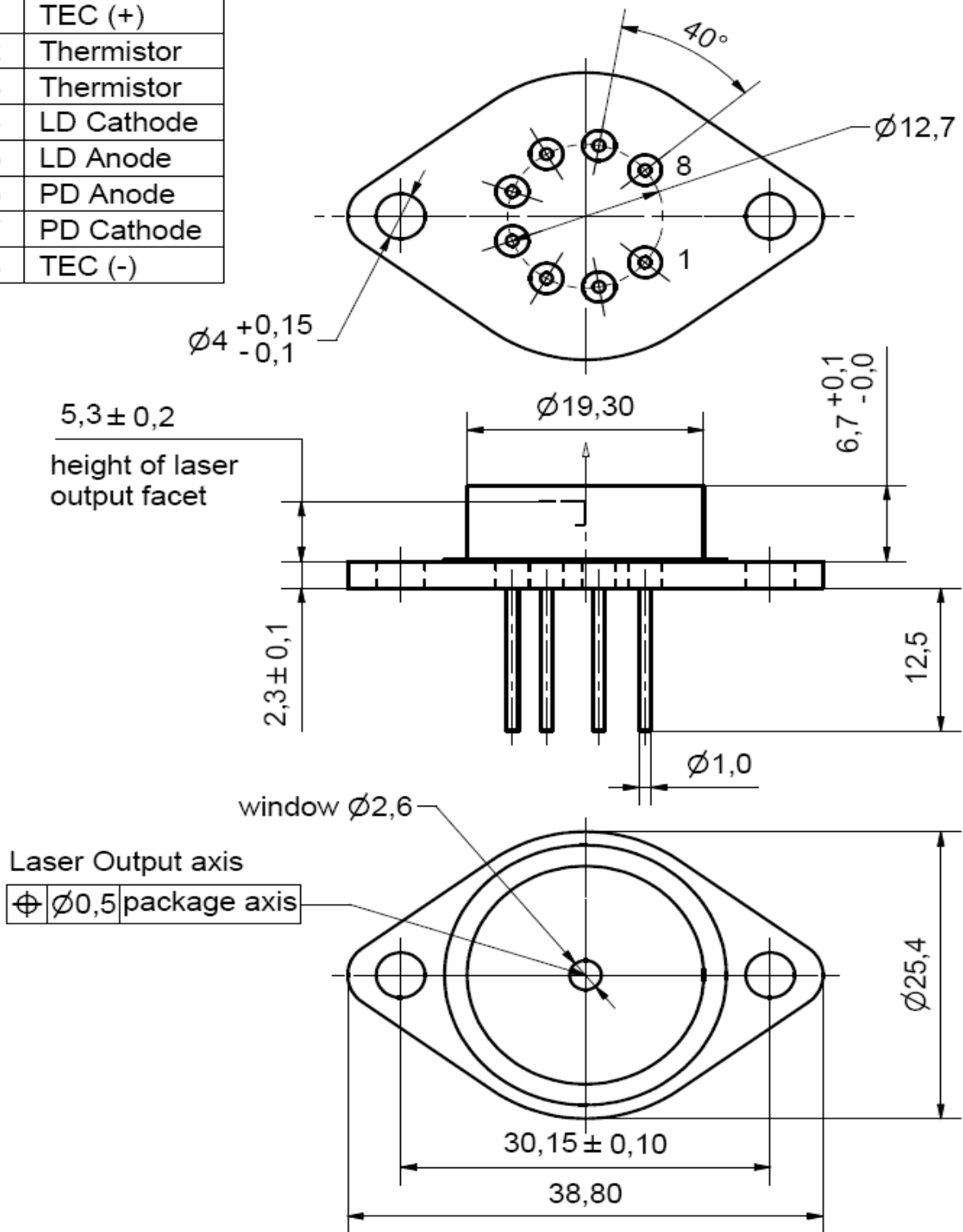
## Package Information

	Part No.	
TO-3 with thermoelectric cooler	TOC03	available (see image)
others		on request

## Pinout

1	TEC+	5	Laser Anode
2	Thermistor (1)	6	Monitor Photodiode Anode
3	Thermistor (2)	7	Monitor Photodiode Cathode
4	Laser Cathode	8	TEC (-)

1	TEC (+)
2	Thermistor
3	Thermistor
4	LD Cathode
5	LD Anode
6	PD Anode
7	PD Cathode
8	TEC (-)



### Thermoelectric cooler

	Symbol	Unit	min	typ	max
Current	I	A			1.8
Voltage	U	V			3.2
Thermal load	$Q_c$	W			3.1
Temperature difference	dT	K			70