



## 2.5Gbps 1550nm DFB LD TO-CAN

Model: AL1550DXXTXX-XX



### Features:

- Wide temperature range operation from -40°C to +85°C
- High slope efficiency
- Speed up to 2.5Gbps
- TO-56 package
- Built-in InGaAs monitor or not

### Product Specifications:

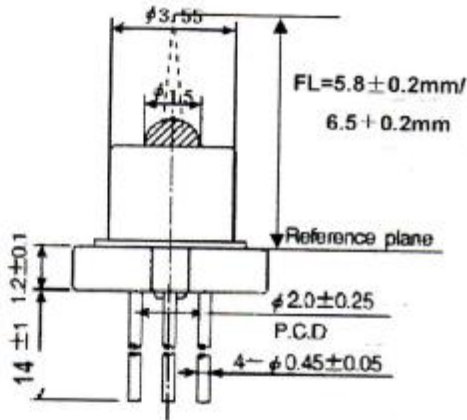
Absolute Maximum Ratings(T=25°C)

Parameter	Symbol	Unit	Min	Max	Note
Storage Temperature	T <sub>stg</sub>	°C	-40	+100	
Operating Temperature	T <sub>op</sub>	°C	-40	+85	
Forward current(LD)	I <sub>f</sub>	mA		100	
Reverse voltage(LD)	V <sub>r</sub>	V		2	
Maximum Power	P <sub>o</sub>	mW		10	
Solder Reflow Temperature		°C		260	10 seconds max

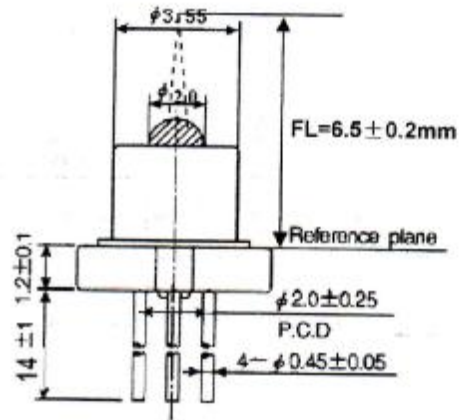
Electro-Optical Characteristics(T=25°C, unless noted otherwise)

Parameter	Symbol	Unit	Min	Typ	Max	Test Condition
Threshold current	I <sub>th</sub>	mA	-	12	15	CW, Tc=25°C
			-	30	40	CW, Tc=85°C
Optical output power	P <sub>o</sub>	mW	3	-	-	CW, I <sub>op</sub> =I <sub>th</sub> +20mA
Slope efficiency	S <sub>e</sub>	mW/mA	0.15	-	-	CW, I <sub>op</sub> =I <sub>th</sub> +20mA
Peak wavelength	λ <sub>c</sub>	nm	1540	-	1560	CW, I <sub>op</sub> =I <sub>th</sub> +20mA
Spectral Width	Δλ	nm	-	-	1.0	RMS
Side-mode Suppression Ratio	SMSR	dB	30	-	-	CW, I <sub>op</sub> =I <sub>th</sub> +20mA, Tc=25°C
Forward Voltage	V <sub>f</sub>	V	-	1.2	1.5	CW, I <sub>op</sub> =I <sub>th</sub> +20mA, Tc=25°C
Monitor current	I <sub>m</sub>	μA	120		800	CW, I <sub>op</sub> =I <sub>th</sub> +20mA
Monitor Dark current	I <sub>d</sub>	nA			100	V <sub>r</sub> =5V, Tc=25°C
Beam Divergence Angle	θ <sub>y</sub>	degree		20		Po=5mw,FWHM
	θ <sub>x</sub>			30		

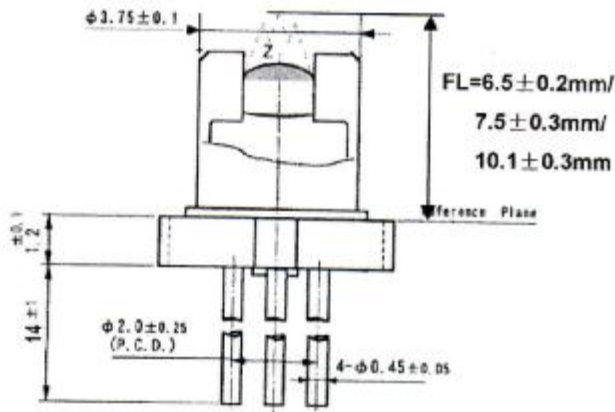
Outline Drawings (in mm):



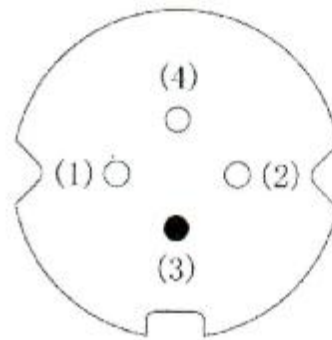
TYPE BL: 1.5mm ball lens cap



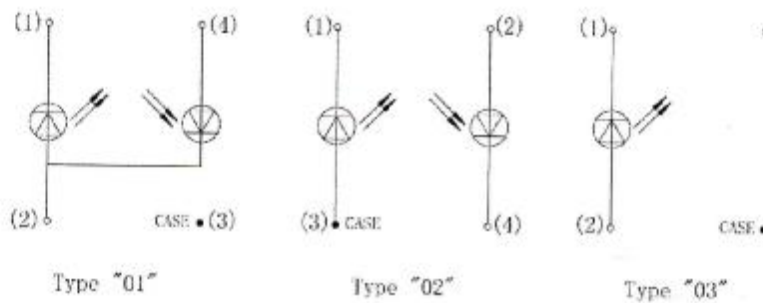
TYPE BBL: 2.0mm ball lens cap



TYPE AL: aspherical lens cap



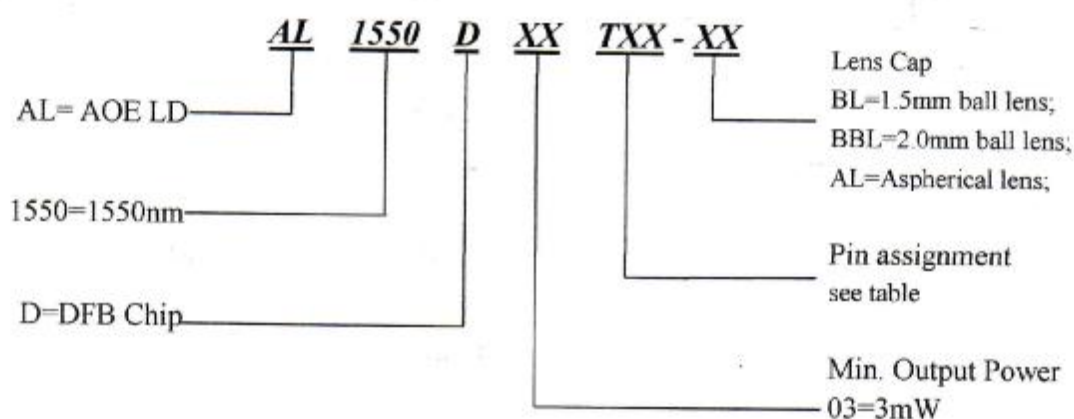
Bottom view





PIN-OUT and Focal Length

Number	Pin Assignment			Type	Focal length
	"01"	"02"	"03"		Length(mm)
PIN 1	LD-	LD-	LD-	BL	$5.8 \pm 0.2 / 6.5 \pm 0.2$
PIN 2	LD+(PD-)	PD+	LD+	BBL	$6.5 \pm 0.2$
PIN 3	Case	LD+	Case	AL	$6.5 \pm 0.2 / 7.5 \pm 0.3 / 10.1 \pm 0.3$
PIN 4	PD+	PD-	/		

**Ordering information:****Precaution:**

- (1) The modules should be handled in the same manner as ordinary semiconductor device to prevent the electro-static damages. For safety keeping and carrying, the modules should be packaged with ESD proof material. To assemble the modules on PCB, the workbench, the soldering iron and the human body should be grounded.
- (2) Please pay special attention to the atmosphere condition because the dew on the module may cause some electrical damages.
- (3) Under such a strong vibration environment as in automobile, the performance and reliability are not guaranteed.