



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# D850-5I

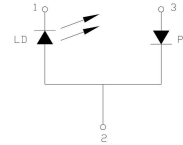
• 850nm 5mW 5.6mm laser diode •

## Product Description

D850-5I is an 850nm MOCVD grown laser diode with quantum well structures. This reliable 5mW IR is suitable for medical and measurement applications.

## Features

- Device: 850nm IR laser diode
- Power: 5mW
- Package Type: TO-18 (5.6mmΦ)



### • Absolute Maximum Rating (Tc=25°C)

Characteristics	Symbols	Rating	Unit
Optical power	Po	7	mW
Reverse Voltage (Laser)	V	2	V
Reverse Voltage (PIN)	V	30	V
Operating Temperature	Top	-10 to +60	°C
Storage Temperature	Tstg	-40 to +85	°C

### • Electrical and Optical Characteristics (Tc=25°C)

Characteristics	Symbols	Min	Typ	Max.	Unit	Condition
Optical Power	Po	-	5	-	mW	-
Threshold Current	I <sub>th</sub>	-	10	20	mA	Po=5mW
Operating Current	I <sub>op</sub>	-	22	35	mA	Po=5mW
Operating Voltage	V <sub>op</sub>	-	2.0	2.5	Volts	Po=5mW
Slope Efficiency	η	0.4	0.7	1.0	mW/mA	Po=2-5mW
Lasing Wavelength	λ	840	850	860	nm	Po=5mW
Beam Divergence	θ <sub>∥</sub>	7.0	8.5	12	deg	Po=5mW
	θ <sub>⊥</sub>	23	30	35	deg	Po=5mW
Beam Angle Deviation	θ <sub>∥</sub>	-3		3	deg	Po=5mW
	θ <sub>⊥</sub>	-3		3	deg	Po=5mW
Monitor Current	I <sub>m</sub>	-	0.2	0.70	mA	Po=5mW
Emission Point Accuracy	ΔX	-60	-	60	μm	
	ΔY	-60	-	60	μm	
	ΔZ	-60	-	60	μm	
Astigmatism	As	-	-	15	μm	