



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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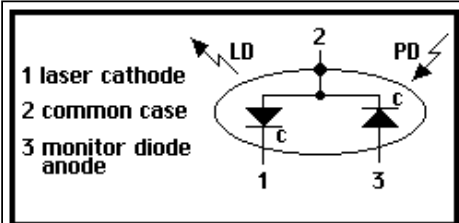
US-Lasers: 650nm-5mW - Red Laser Diode and Red Diode Laser Module

Links to Laser Diode & Laser Module Configurations and Specifications
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- [Laser Diodes](#) [Laser Diode Module](#) [Micro Laser Module](#) [Variable Output Laser Diode Module](#)
[D650-5](#) [M650-5](#) [MM650-5](#)

DATA SHEETS MM650nm 5mWRED LASER MODULE & DIODE		
Barrel Specs: <ul style="list-style-type: none"> ● 2 Pieces ● 12 - 56 Thread Size ● Dia: 6.4mm ● Length: 17mm 	Weight & Wire Lengths: <ul style="list-style-type: none"> ● Module with 6" wire leads - 49 grain wt.b ● Module without 6" wire leads - 42 grain wt ● Module with spring leads - 42 1/2 grain wt. ● Spring 2.4mm dia. 4mm long (trimmable) 	Lens Housing Specs: <ul style="list-style-type: none"> ● 12 - 56 Thread Size ● 3.0mm Aperture ● 4.0mm Plastic Lens

RED LASER DIODE ABSOLUTE MAXIMUM RATINGS - (Tc=25 °C)

TECHNICAL DATA Visible laser diode light output 650nm Optical power output 5mW CW Package Type 5.6mm Built-in photo diode for monitoring laser output	 <p>Pin Out Diagram - Style A</p>
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Items	Symbols	Values	Unit
Optical output power	Po	5	mW
Laser diode reverse voltage	V	2	V
Photo diode reverse voltage	V	30	V
Operating temperature	Topr	-10 ~ +60	°C
Storage temperature	Tstg	-40 ~ +85	°C

OPTICAL and ELECTRICAL CHARACTERISTICS - (Tc=25 °C)

Items	Symbols	Min.	Typ.	Max.	Unit	Test Condition
Optical output power	Po	-	5	-	mW	-
Threshold current	Ith	-	20	70	mA	-
Operating current	Iop	-	65	85	mA	Po=5mW
Operating voltage	Vop	-	2.7	-	V	Po=5mW
Lasing wavelength	-	640	650	660	nm	Po=5mW
Beam divergence	-	-	5	11	deg	Po=5mW
Beam divergence	-	-	25	37	deg	Po=5mW
Monitor current	Im	-	10	20	uA	Po=5mW
Astigmatism	As	-	11	-	um	Po=5mW
MTTF	-	-	3-5,000 hrs.		-	Po=5mW
Emitter Size	10 x 60 Microns - Emitter Distance to Cap Lens = 0.3mm					
Structure	Index Guided					