

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: 640nm-5mW - Red Laser Diode and Red Diode **Laser Module**

Links to Laser Diode &

**Laser Module** 

<u>Laser Diodes</u> <u>Laser Diode Module</u> <u>Micro Laser Module</u> <u>Variable Output</u> <u>Laser Diode Module</u>

**Configurations and Specifications** 

MM640-5 >>>>>>>

DATA SHEETS MM640nm 5mWRED LASER MODULE & DIODE								
Barrel Specs:	Weight & Wire Lengths:	Lens Housing Specs:						
2 Pieces     12 - 56 Thread Size	Module with 6" wire leads - 49 grain wt.b     Module without 6" wire leads - 42 grain wt	12 - 56 Thread Size     3.0mm Aperture						
Dia: 6.4mm     Length: 17mm	Module with spring leads - 42 1/2 grain wt.     Spring 2.4mm dia. 4mm long (trimmable)	4.0mm Plastic Lens						

## RED LASER DIODE DATA SHEET

ABSOLUTE MAXIMUM RATINGS - (Tc=25  $^{\circ}$ 

C)

## TECHNICAL DATA

Visible laser diode light

output

Optical power output 5mW CW Package Type 5.6mm

Built-in photo diode for monitoring laser output

640nm

	1 laser cathode 2 common case 3 monitor diode anode 1 3				
Pin Out Diagram					

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 ~ +50	$^{\circ}\mathrm{C}$
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	-	30	65	mA	-		
Operating current	Iop	-	55	75	mA	Po=5mW		
Operating voltage	Vop	-	2.7	-	V	Po=5mW		
Lasing wavelength		635	640	645	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	$10 \times 60 \text{ Microns}$ - Emitter Distance to Cap Lens = $0.3 \text{mm}$						
Structure	Index Gui	ded			_		