



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!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# US-Lasers: 780nm-5mW - Infrared Laser Diode and Infrared Diode Laser Module

**Links to Laser Diode & Laser Module Configurations and Specifications >>>>>>>>>**

[Laser Diode](#)

[Laser Diode Module](#)

[Micro Laser Module](#)

[Variable Output Laser Diode Module](#)

[N780-5](#)

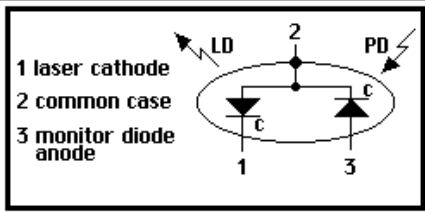
[NM780-5](#)

[MM780-5](#)

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

## INFRARED DIODE LASER DATA SHEET

**ABSOLUTE MAXIMUM RATINGS - (Tc=25 °C)**

<b>TECHNICAL DATA for LASER DIODE</b> <ul style="list-style-type: none"> <li>Index Guided MQW Structure</li> <li>Wavelength: 780nm (Typ.)</li> <li>Optical Power: 5mW CW</li> <li>Threshold Current: 25mA (Typ.)</li> <li>Standard Package: 5.6mm</li> </ul>	 <p><b>Pin Out Diagram - Style A</b></p>								
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Infrared light output</td> <td>780nm</td> </tr> <tr> <td>Optical power output</td> <td>5mW CW</td> </tr> <tr> <td>Package Type</td> <td>5.6mm</td> </tr> <tr> <td colspan="2">Built-in photo diode for monitoring laser output</td> </tr> </table>	Infrared light output	780nm	Optical power output	5mW CW	Package Type	5.6mm	Built-in photo diode for monitoring laser output		
Infrared light output	780nm								
Optical power output	5mW CW								
Package Type	5.6mm								
Built-in photo diode for monitoring laser output									

Items	Symbols	Values	Unit
Optical output power	Po	5	mW
Laser diode reverse voltage	VLDR	2	V
Photo diode reverse voltage	VPDR	30	V
Operating temperature	Topr	-10 ~ +40	°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	15	25	40	mA	-
Operating current	Iop	25	35	50	mA	Po=5mW
Operating voltage	Vop	1.9	2.1	2.5	V	Po=5mW
Lasing wavelength	λ D	770	780	790	nm	Po=5mW
Beam divergence	θ F	8	11	15	deg	Po=5mW
Beam divergence	θ z	20	35	45	deg	Po=5mW
Slope Efficiency (mW/mA)	η	0.1	0.3	0.6	-	-
Monitor current	Im	100	200	600	μ A	Po=5mW, Vr=5V
Astigmatism	As	-	11	-	μ m	Po=5mW
MTTF			3000-5,000 hrs.			Po=5mW, NA=0.4
Emitter Size			1 x 4 Microns			
Emitter Distance to Cap Lens Structure			0.3mm			
			Index Guided			