



**8052-1313-AU 808nm 500mW IR Laser Diodes AUTO PACKAGE**

Specifications

Device Laser Diode  
Package Type TO-5( 9.0mm)



Absolute Maximum Ratings(Tc=25 )

| Characteristics       |                 | Symbols | Ratings    | Units |
|-----------------------|-----------------|---------|------------|-------|
| Reverse Voltage       | Reverse Voltage | Po      | <b>500</b> | mW    |
|                       |                 | Vr      | <b>2</b>   | V     |
| Voltage               | PIN PD          | Vr(PIN) | <b>10</b>  | V     |
| Operating Temperature |                 | Top     | -10 +40    |       |
| Storage Temperature   |                 | Tstg    | -40 +85    |       |

Electrical and optical Characteristics(Tc=25 )

| Characteristics               |               | Symbols | Conditions                 | Min.       | Typ.       | Max.        | Units |
|-------------------------------|---------------|---------|----------------------------|------------|------------|-------------|-------|
| Threshold Current             |               | Ith     | -                          | -          | <b>250</b> | <b>400</b>  | mA    |
| Operating Current             |               | Iop     | Po=500mW                   | -          | <b>800</b> | <b>1500</b> | mA    |
| Operating Voltage             |               | Vop     | Po=500mW                   | -          | <b>1.9</b> | <b>2</b>    | Volts |
| Slope Efficiency              |               |         | 200mW<br>I(500mW)-I(300mW) | <b>0.3</b> | <b>0.7</b> | <b>1.0</b>  | mW/mA |
| Monitor Current               |               | Im      | Po=500mW                   | -          |            | <b>6.0</b>  | mA    |
| Beam Divergence<br>(FWHM)     | Parallel      | //      | Po=500mW                   | -          | <b>5.5</b> | -           | deg.  |
|                               | Prependicular |         | Po=500mW                   | -          | <b>32</b>  | -           | deg.  |
| Parallel Deviation Angle      |               | //      | Po=500mW                   | <b>-3</b>  | -          | <b>3</b>    | deg.  |
| Perpendicular Deviation Angle |               |         | Po=500mW                   | <b>-3</b>  | -          | <b>3</b>    | deg.  |
| Emission Point Accuracy       |               | X       | Po=500mW                   | <b>-50</b> | -          | <b>50</b>   | μ m   |
|                               |               | Y       | Po=500mW                   | <b>-50</b> | -          | <b>50</b>   | μ m   |
|                               |               | Z       | Po=500mW                   | <b>-50</b> | -          | <b>50</b>   | μ m   |
| Lasing Wavelength             |               |         | Po=500mW                   | <b>806</b> | <b>808</b> | <b>812</b>  | nm    |

Im is sorting by custom's need

// and are defined as the angle within which the intensity is 50% of the peak value.