



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

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## Peak Sensitivity Wavelength: 590nm

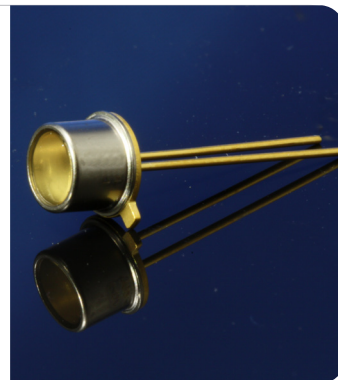
The 590nm visible emitter series is designed for applications requiring high output and precise optical / mechanical axis alignment. Custom package solutions and sorting are available.

### FEATURES

- > TO-18 Metal Can Package
- > High Output Power
- > High Reliability

### APPLICATIONS

- > Color Sensor / Money Bill
- > Paper Sensor / Money Bill
- > Bar-code Reader
- > Fiber Applications



## Absolute Maximum Ratings (Ta=25°C)

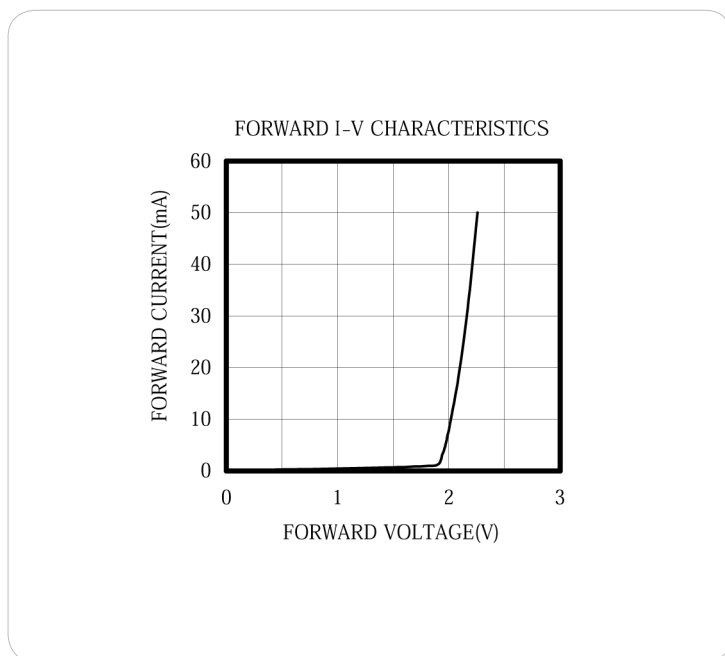
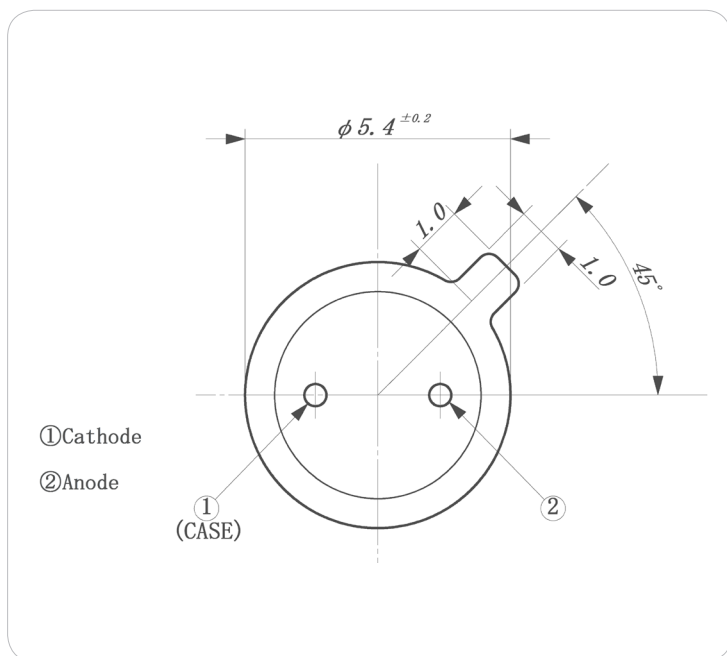
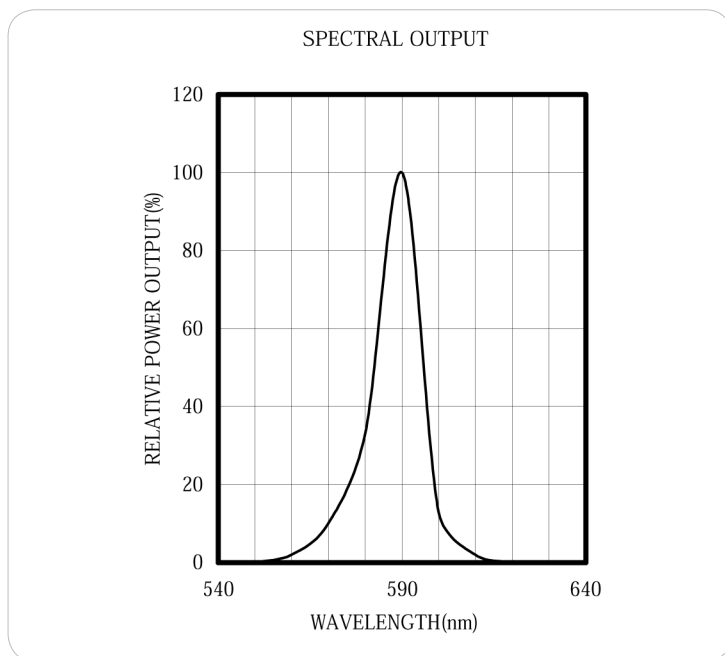
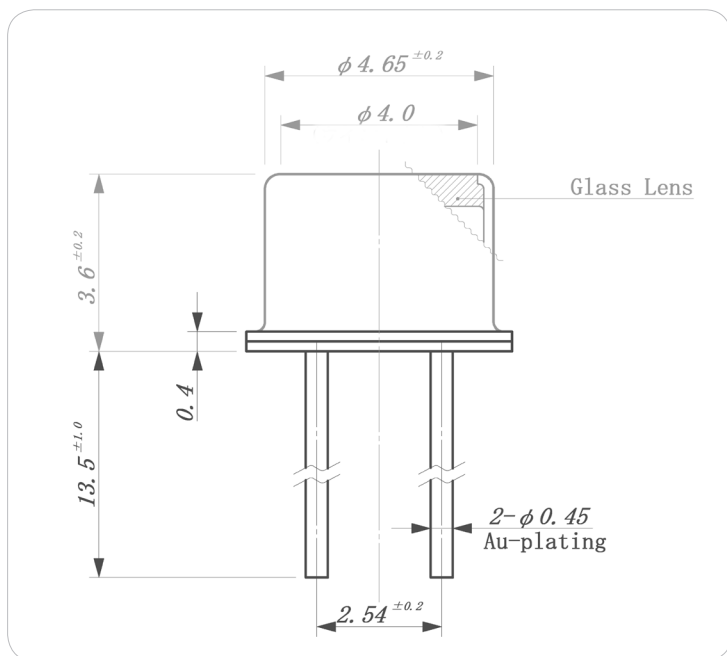


| ITEMS                        | SYMBOL | RATINGS    | UNIT |
|------------------------------|--------|------------|------|
| Forward Current (DC)         | IF     | 50         | mA   |
| Forward Current (Pulse)*1    | IFP    | 0.5        | A    |
| Reverse Voltage              | VR     | 5          | V    |
| Power Dissipation            | PD     | 130        | mW   |
| Operating Temperature Range  | Topr   | -20 ~ +85  | °C   |
| Storage Temperature Range    | Tstg   | -30 ~ +100 | °C   |
| Junction Temperature         | Tj     | 100        | °C   |
| Lead Soldering Temperature*2 | Tls    | 260        | °C   |

\*1: Tw=10μsec, T=10msec. \*2: Time 5 Sec max, Position: Up to 3mm from the body.

## Electrical & Optical Characteristics (Ta = 25°C)

| ITEMS                         | SYMBOL | CONDITIONS | MIN | TYP  | MAX | UNIT  |
|-------------------------------|--------|------------|-----|------|-----|-------|
| Power Output                  | PO     | IF=20mA    | 0.3 | 0.5  | --  | mW    |
| Forward Voltage               | VF     | IF=20mA    | --  | 2.1  | 2.5 | V     |
| Reverse Current               | IR     | VR=5V      | --  | --   | 100 | μA    |
| Peak Emission Wavelength      | λp     | IF=20mA    | --  | 590  | --  | nm    |
| Spectral Line Half Width      | Δλ     | IF=20mA    | --  | 15   | --  | nm    |
| Half Intensity Beam Angle     | Θ      | IF=20mA    | --  | ±20  | --  | deg   |
| Rise Time                     | Tr     | IFP=20mA   | --  | --   | --  | μS    |
| Fall Time                     | Tf     | IFP=20mA   | --  | --   | --  | μS    |
| Junction Capacitance          | Cj     | 1MHz, V=0V | --  | 10   | --  | pF    |
| Temperature Coefficient of PO | P/T    | IF=10mA    | --  | -0.7 | --  | %/°C  |
| Temperature Coefficient of VF | V/T    | IF=10mA    | --  | -1.8 | --  | mV/°C |



Unit: mm, Tolerance: ±0.2

