

High Power Reflective Mirror Type LED

REFLECTIVE LED AOP-Series

SMD Package with mirror inside

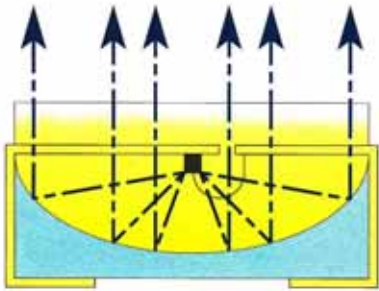


Packed on a precise and compact SMD package with reflective mirror inside, AOP-series realizes greater performance of radiation efficiency (more than 90% of LED chip). Its shaft radiant intensity is about two times as high as the one of the normal molded type LED.

The light from LED chip emitted onto the integral mirror inside of the package is reflected outside as the well-controlled parallel beam with higher performance.

Every spectral peak from Ultraviolet to Infrared are available.

Structure



The light from LED is reflected by the reflective mirror inside of the package and radiated outside as the parallel beam.

Feature

- Irradiate the excellent parallel beam
- High radiant intensity (more than two times as high as the normal mold type LED)
- Pb-free, Surface mounted Model
- Compact size (the height: less than 3mm)
- High reliability

Application

- Various kinds of illumination
(Indoor and outdoor purpose)
- Light source for security system
- Light source for image detection
- Light source for medical analyzer
- Optical transmissions
- Rotary encoders etc.

The data is subject to change without notice due to the improvement.

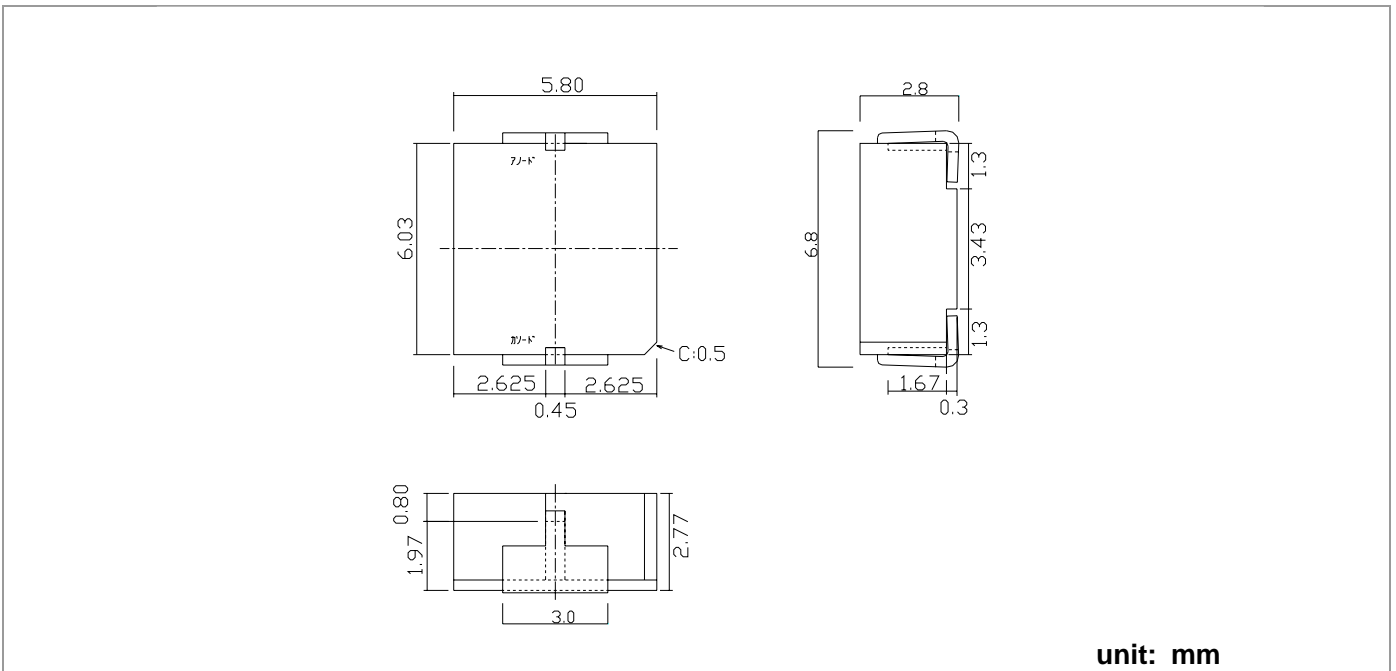
Optical & Electrical Characteristics

| Visible LED | | | | | | | |
|-------------|------------|---------------------------|------------|-----------------|------------------------|------------|-----------------------------|
| Model No. | Color | Forward Voltage V_F (V) | | Wavelength (nm) | Axial luminosity (mcd) | | Spectral bandwidth: 50% (°) |
| | | Max | I_F (mA) | λ_P | Typ | I_F (mA) | |
| AOP3-6305 | Red-orange | 2.45 | 20 | 623 | 25000 | 20 | ± 7.0 |
| AOP3-5905 | Yellow | 2.6 | 20 | 590 | 19000 | 20 | ± 7.0 |
| AOP3-5305 | Green | 3.8 | 20 | 530 | 18000 | 20 | ± 8.5 |
| AOP3-4705 | Blue | 3.8 | 20 | 470 | 20000 | 20 | ± 8.5 |

| Infrared LED | | | | | | | | |
|--------------|---------------------------|------------|---------------------------------|------------|-----------------|-------------------------|------------|-----------------------------|
| Model No. | Forward Voltage V_F (V) | | Radiant intensity I_E (mW/sr) | | Wavelength (nm) | Output Power P_O (mW) | | Spectral bandwidth: 50% (°) |
| | Max | I_F (mA) | Typ. | I_F (mA) | λ_P | Typ. | I_F (mA) | |
| AOP1-7805 | 1.95 | 20 | 220 | 50 | 785 | 14.0 | 50 | ± 7 |
| AOP1-8105 | 1.70 | 50 | 150 | 50 | 810 | 3.5 | 50 | ± 7 |
| AOP1-8505 | 2.3 | 20 | 220 | 50 | 850 | 18.0 | 50 | ± 7 |
| AOP1-8805 | 1.7 | 50 | 230 | 50 | 875 | 14.0 | 50 | ± 7 |
| AOP2-9405 | 1.45 | 50 | 160 | 50 | 940 | 13.0 | 50 | ± 7 |

* Please ask us if you need LED with the other spectral peak.

External Dimension



The data is subject to change without notice due to the improvement.

REFLECTIVE LED AOP5-Series

SMD Package with mirror inside: Larger size

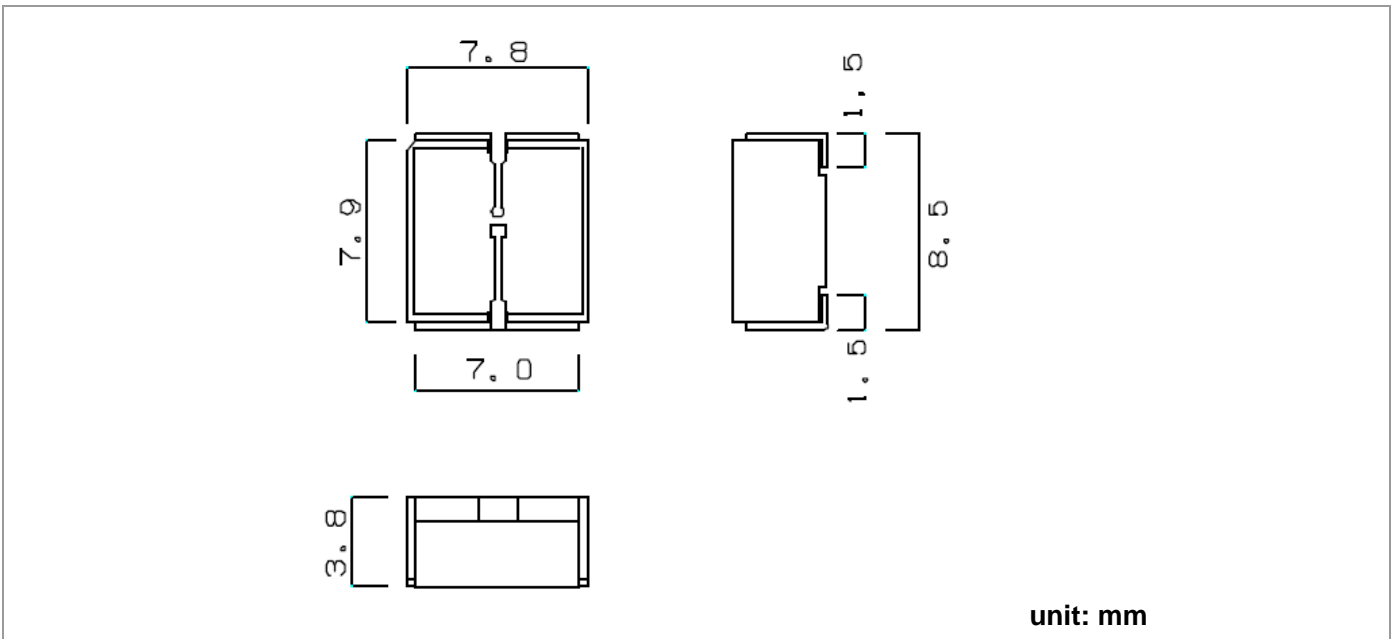
Optical & Electrical Characteristics

| Visible LED | | | | | | | |
|-------------|------------|------------------------------|------------|--------------------|------------------------|------------|-------------------------------------|
| Model No. | Color | Forward Voltage V_F (V) | | Wavelength (nm) | Axial luminosity (mcd) | | Spectral bandwidth: 50% (°) |
| | | Max | I_F (mA) | λ_P | Typ | I_F (mA) | |
| AOP5-6310N1 | Red-orange | 2.45 | 20 | 625 | 30000 | 20 | ± 4.0 |
| AOP5-5310T1 | Green | 3.8 | 20 | 530 | 20000 | 20 | ± 5.0 |
| AOP5-4710T1 | Blue | 3.8 | 20 | 470 | 35000 | 20 | ± 5.0 |

| Infrared LED | | | | | | |
|--------------|----------------------------------|------------|---|--------------------|--|-------------------------------------|
| Model No. | Forward Voltage [V_F] (V) | | Radiant intensity at 50mA I_E (mW/sr) | Wavelength (nm) | Output Power at 50mA [P_O] (mW) | Spectral bandwidth: 50% (°) |
| | Max | I_F (mA) | | λ_P | Typ. | |
| AOP5-8510P1 | 1.7 | 20 | 700 | 850 | 14.0 | ± 4 |
| AOP5-8810P1 | 1.7 | 50 | 700 | 875 | 18.0 | ± 4 |
| AOP5-9410P1 | 1.45 | 50 | 650 | 940 | 13.0 | ± 4 |

* Please ask us if you need LED with the other spectral peak.

External Dimension



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