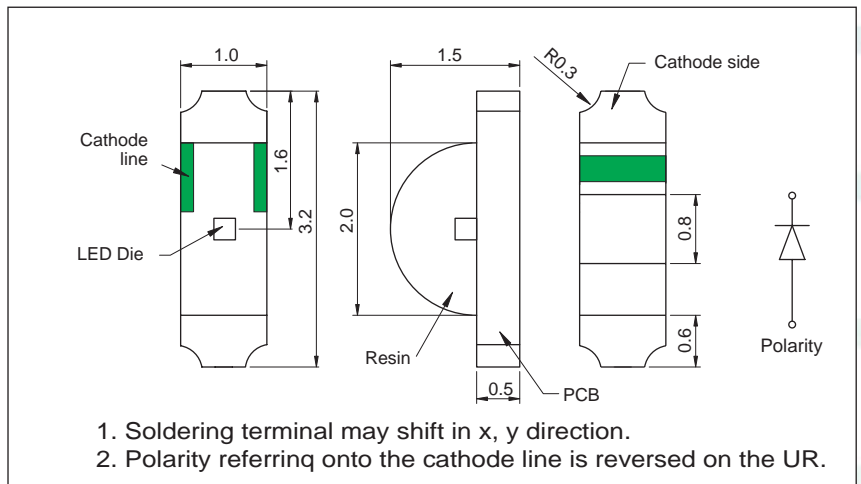


Characters

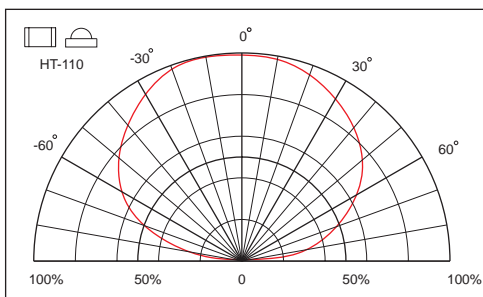
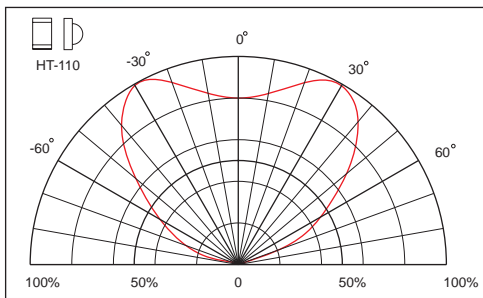
- Chip LED (3.2x1.0x1.5)
- Super compact type
- Side view type

Package Outline Dimensions

(Unit:mm Tolerance:+/-0.1)

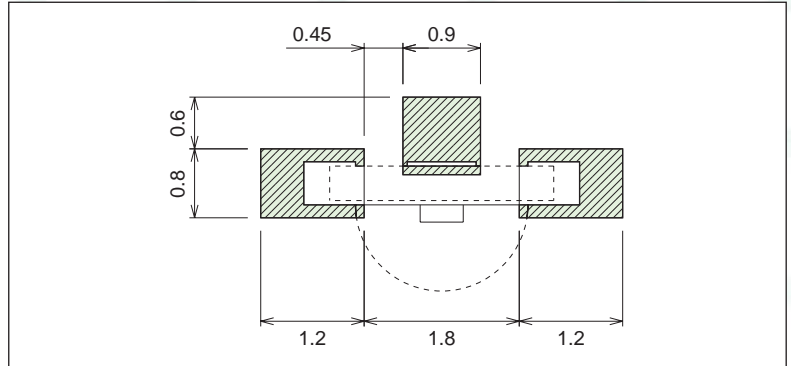


Directive Characteristics



Recommended Soldering Pattern

Unit: mm



Absolute Maximum Ratings

(Ta=25 °C)

| Item | Symbol | Value | | | | | | Unit |
|---|-------------------|-----------|-------|--------|---------|-----|-------|------|
| | | GaP | GaAsP | AlGaAs | AlInGaP | GaN | InGaN | |
| Power Dissipation | P _D | 65 | 65 | 66 | 72 | 68 | 80 | mW |
| DC Forward Current | I _F | 25 | 25 | 30 | 30 | 15 | 20 | mA |
| Pulsed Forward Current | I _{FP} * | 100 | 100 | 100 | 100 | 35 | 80 | mA |
| Reverse Voltage (I _R = 100uA) | V _R | 5 | | | | | | V |
| Operating Temperature | T _{OP} | -30 to 80 | | | | | | °C |
| Storage Temperature | T _{ST} | -40 to 85 | | | | | | °C |

*Condition for I_{FP} is pulse of 1/10 duty and 0.1msec width



Electrical-Optical Characteristics

(Ta=25 °C)

| Code for parts | Lighting Color | Material | Forward Voltage (V) | | Wavelength (nm) typ | | | Luminous Intensity (mcd)* | | I _F (mA) |
|----------------|---------------------|----------|---------------------|-----|---------------------|----------------|----|---------------------------|-----|---------------------|
| | | | typ | max | λ _D | λ _P | Δλ | min | typ | |
| HT-110YG | Yellow Green | GaP | 2.2 | 2.6 | 573 | 568 | 30 | 6.3 | 16 | 20 |
| HT-110Y | Yellow | GaAsP | 2.1 | 2.6 | 590 | 589 | 35 | 2.5 | 9 | 20 |
| HT-110D | Amber | GaAsP | 2.1 | 2.6 | 608 | 610 | 35 | 2.5 | 9 | 20 |
| HT-110SD | Super Bright Orange | GaAsP | 2.1 | 2.6 | 629 | 642 | 35 | 4 | 11 | 20 |
| HT-110UR | Super Bright Red | AlGaAs | 1.8 | 2.2 | 643 | 660 | 20 | 6.3 | 16 | 20 |

| Code for parts | Lighting Color | Material | Forward Voltage (V) | | Wavelength (nm) typ | | | Luminous Intensity (mcd)* | | I _F (mA) |
|----------------|---------------------------|----------|---------------------|-----|---------------------|----------------|----|---------------------------|-----|---------------------|
| | | | typ | max | λ _D | λ _P | Δλ | min | typ | |
| HT-110UYG | Ultra Bright Yellow Green | AllnGaP | 2.0 | 2.4 | 573 | 574 | 20 | 25 | 50 | 20 |
| HT-110UY | Ultra Bright Yellow | AllnGaP | 1.9 | 2.4 | 589 | 593 | 15 | 40 | 80 | 20 |
| HT-110UD | Ultra Bright Amber | AllnGaP | 1.9 | 2.4 | 605 | 609 | 17 | 40 | 80 | 20 |
| HT-110USD | Ultra Bright Orange | AllnGaP | 1.9 | 2.4 | 622 | 636 | 17 | 40 | 80 | 20 |
| HT-110URO | Ultra Bright Red | AllnGaP | 1.9 | 2.4 | 632 | 645 | 22 | 25 | 50 | 20 |

| Code for parts | Lighting Color | Material | I _F =20mA | | | | | | | I _F =5mA | | | | | | |
|----------------|----------------|----------|----------------------|-----|---------------------|----------------|----|---------------------------|-----|---------------------|------|---------------------|----------------|----|---------------------------|-----|
| | | | Forward Voltage (V) | | Wavelength (nm) typ | | | Luminous Intensity (mcd)* | | Forward Voltage (V) | | Wavelength (nm) typ | | | Luminous Intensity (mcd)* | |
| | | | typ | max | λ _D | λ _P | Δλ | min | typ | typ | max | λ _D | λ _P | Δλ | min | typ |
| HT-110CBS | Blue | GaN | 4.2 | 4.5 | 466 | 428 | 65 | 2.5 | 9 | - | - | - | - | - | - | |
| HT-110CB | Blue | InGaN | 3.6 | 4.0 | 470 | 468 | 26 | 25 | 60 | 2.9 | 3.35 | 472 | 470 | 26 | 10 | 20 |
| HT-110CG | Green | InGaN | 3.6 | 4.0 | 527 | 518 | 35 | 63 | 150 | 2.9 | 3.35 | 529 | 520 | 35 | 25 | 50 |
| HT-110NB | Blue | InGaN | 3.3 | 3.9 | 470 | 468 | 40 | 25 | 60 | 2.8 | 3.15 | 472 | 470 | 40 | 10 | 20 |
| HT-110NG | Green | InGaN | 3.3 | 3.9 | 527 | 520 | 40 | 63 | 150 | 2.8 | 3.15 | 529 | 522 | 40 | 25 | 50 |

*Per NIST standards