## LED565-66-60

## TECHNICAL DATA



## High Power LED Array, 60 chips

LED565-66-60 is a wide viewing and extremely high output power illuminator assembled with a total of 60 high efficiency GaP diode chips, mounted on a metal stem TO-66 with AIN ceramics and covered with double coated clear silicone and epoxy resin.
These devices are designed for high current operation with proper heat sinking to improver thermal conductive efficiency.

## Specifications

- Structure: GaP, 60 LED chips
- Peak Wavelength: typ. 565 nm
- Optical Output Power: typ. 8 mW
- Package: TO-66 stem with AIN, clear epoxy resin

Absolute Maximum Ratings ( $T_{C}=25^{\circ} \mathrm{C}$ )

| Item | Symbol | Value | Unit |
| :--- | :---: | :---: | :---: |
| Power Dissipation | $\mathrm{P}_{\mathrm{D}}$ | 6.5 | W |
| Forward Current | $\mathrm{I}_{\mathrm{F}}$ | 500 | mA |
| Pulsed Forward Current $*^{1}$ | $\mathrm{I}_{\mathrm{FP}}$ | 600 | mA |
| Reverse Voltage | $\mathrm{V}_{\mathrm{R}}$ | 50 | V |
| Junction Temperature | $\mathrm{T}_{\mathrm{J}}$ | 100 | ${ }^{\circ} \mathrm{C}$ |
| Operating Temperature | $\mathrm{T}_{\text {opr }}$ | $-30 \ldots+85$ | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature | $\mathrm{T}_{\text {sta }}$ | $-30 \ldots+110$ | ${ }^{\circ} \mathrm{C}$ |
| Soldering Temperature ${ }^{2}$ | $\mathrm{~T}_{\text {sol }}$ | 265 | ${ }^{\circ} \mathrm{C}$ |

$*^{1}$ duty $=1 \%$, pulse width $=1 \mu \mathrm{~s}$
$*^{2}$ must be completed within 3 seconds

(Unit: mm)


## Electro-Optical Characteristics

| Item | Symbol | Condition | Min. | Typ. | Max. | Unit |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Radiated Power | $\mathrm{P}_{\mathrm{O}}$ | $\mathrm{I}_{\mathrm{F}}=240 \mathrm{~mA}$ | - | 8 | - | mW |
| Brightness | $\mathrm{I}_{V}$ | $\mathrm{I}_{\mathrm{F}}=240 \mathrm{~mA}$ | - | 1.25 | - | cd |
| Forward Voltage | $\mathrm{V}_{\mathrm{F}}$ | $\mathrm{I}_{\mathrm{F}}=240 \mathrm{~mA}$ | - | 11.0 | - | V |
| Reverse Voltage | $\mathrm{V}_{R}$ | $\mathrm{I}_{R}=10 \mu \mathrm{~A}$ | 50 | - | - | V |
| Peak Wavelength | $\lambda_{P}$ | $\mathrm{I}_{\mathrm{F}}=240 \mathrm{~mA}$ | 550 | 565 | 575 | nm |
| Half Width | $\Delta \lambda$ | $\mathrm{I}_{\mathrm{F}}=240 \mathrm{~mA}$ | - | 15 | - | nm |
| Viewing Half Angle | $\Theta_{1 / 2}$ | $\mathrm{I}_{\mathrm{F}}=240 \mathrm{~mA}$ | - | $\pm 65$ | - | deg. |

Heat Sink is required, thermal resistance $<8 \mathrm{~K} / \mathrm{W}$

## Notes

- This high power LED must be cooled!

NOTE MUST BE COOLED

- Do not view directly into the emitting area of the LED during operation!
- The above specifications are for reference purpose only and subjected to change without prior notice.


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## Typical Performance Curves



