



■ Absolute Maximum Ratings

Ta = 25°C

| | | Pure Green | Green | Yellow | | Orange | Red | Units |
|----------------------|------|------------|----------|----------|----------|----------|----------|-------|
| | | HBG | HPG | HPY | HAY | HAA | HBR | |
| Power Dissipation | Pd | 125 | 125 | 125 | 125 | 125 | 100 | mW |
| Forward Current | IF | 50 | 50 | 50 | 50 | 50 | 50 | mA |
| Peak Forward Current | IFM | 100 | 100 | 100 | 100 | 100 | 300 | mA |
| Reverse Voltage | VR | 4 | 4 | 4 | 4 | 4 | 4 | V |
| Operating Temp. | Topr | -30~+85 | -30~+85 | -30~+85 | -30~+85 | -30~+85 | -30~+85 | °C |
| Storage Temp. | Tstg | -30~+100 | -30~+100 | -30~+100 | -30~+100 | -30~+100 | -30~+100 | °C |
| Derating * | ΔIF | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 | mA/°C |

* The current derating for operation applies when temperature is above 25°C.

• IFM Condition : tw ≤ 1ms, Duty ≤ 1/20

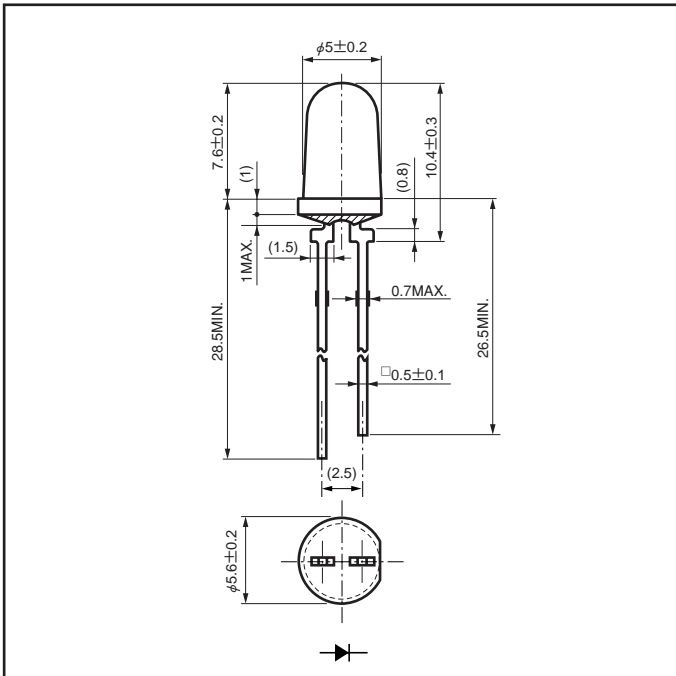
■ Electro-Optical Characteristics

Ta = 25°C

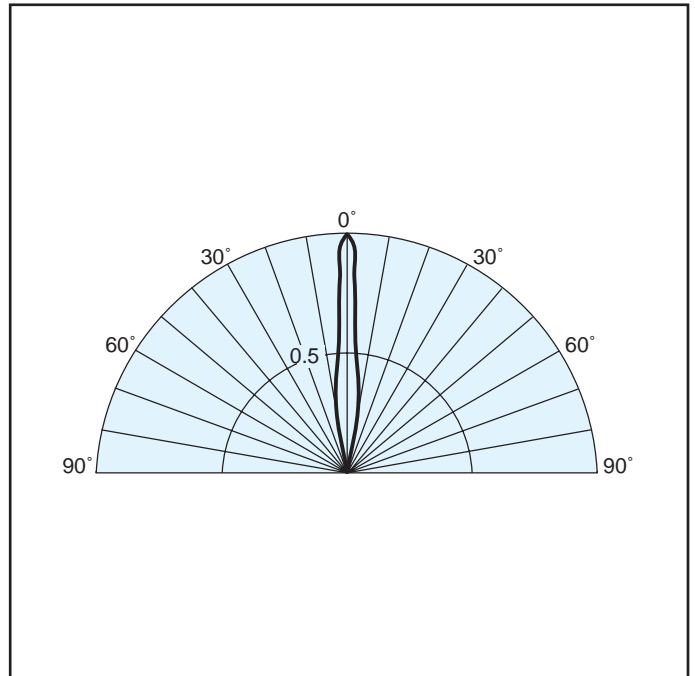
| Part No. | Chip | | Lens | Luminous Intensity | | | Wavelength | | | | Forward Voltage | | | Reverse Current | |
|----------|----------|---------------|-------|--------------------|-----|-----|------------|-----|-----|-----|-----------------|-----|-----|-----------------|---|
| | Material | Emitted Color | | Iv | | | λ d | λ p | Δ λ | | VF | | | IR | |
| | | | MIN | TYP | IF | TYP | TYP | TYP | IF | TYP | MAX | IF | MAX | VR | |
| HBG5066X | GaP | Pure Green | Clear | 100 | 150 | 20 | 558 | 555 | 30 | 20 | 2.1 | 2.5 | 20 | 20 | 4 |
| HPG5066X | GaP | Green | | 150 | 200 | 20 | 567 | 560 | 30 | 20 | 2.1 | 2.5 | 20 | 20 | 4 |
| HPY5066X | GaP | Yellow | | 200 | 300 | 20 | 572 | 570 | 30 | 20 | 2.1 | 2.5 | 20 | 20 | 4 |
| HAY5066X | GaAsP | Yellow | | 100 | 150 | 20 | 590 | 580 | 30 | 20 | 2.2 | 2.5 | 20 | 20 | 4 |
| HAA5066X | GaAsP | Orange | | 160 | 250 | 20 | 606 | 605 | 30 | 20 | 2.2 | 2.5 | 20 | 20 | 4 |
| HBR5066X | GaAlAs | Red | | 200 | 300 | 20 | 647 | 660 | 30 | 20 | 1.7 | 2.0 | 20 | 100 | 4 |
| Units | | | | mcd | mcd | mA | nm | nm | nm | mA | V | V | mA | μA | V |

■ Package Dimensions

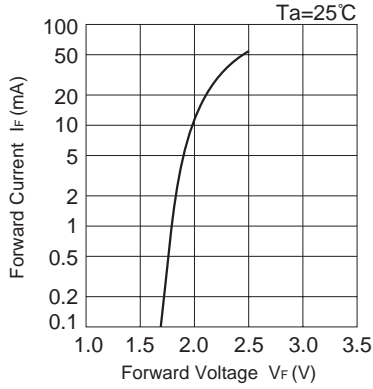
Unit : mm



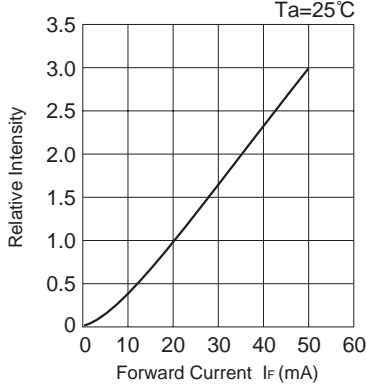
■ Spatial Distribution



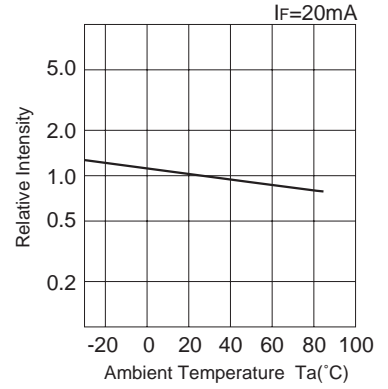
■ Forward Voltage vs. Forward Current



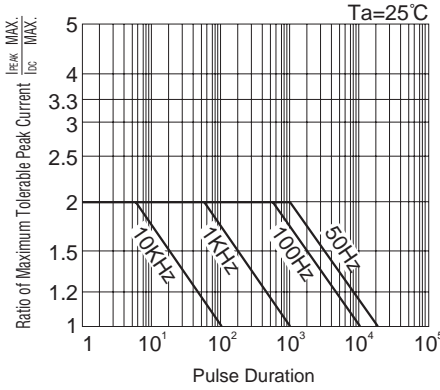
■ Forward Current vs. Relative Intensity



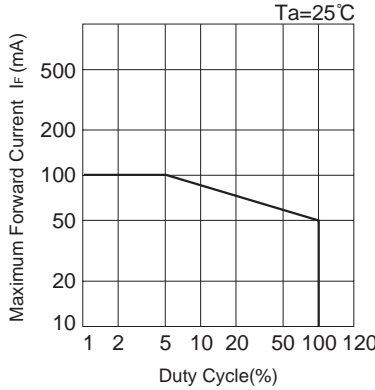
■ Ambient Temperature vs. Relative Intensity



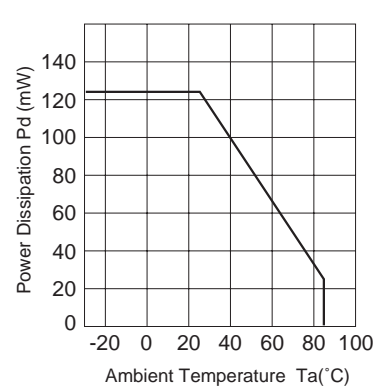
■ Pulse Duration vs. Maximum Tolerable Peak Current



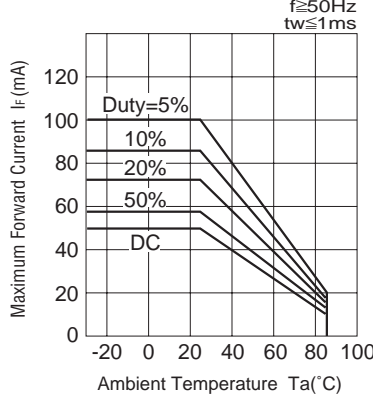
■ Duty Cycle vs. Maximum Forward Current



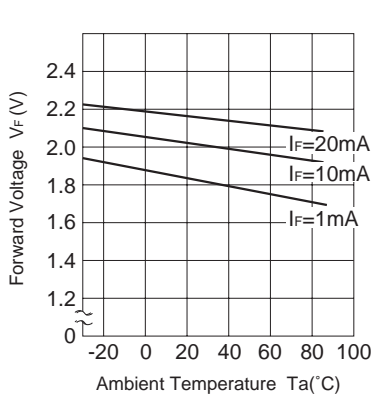
■ Power Dissipation vs. Ambient Temperature



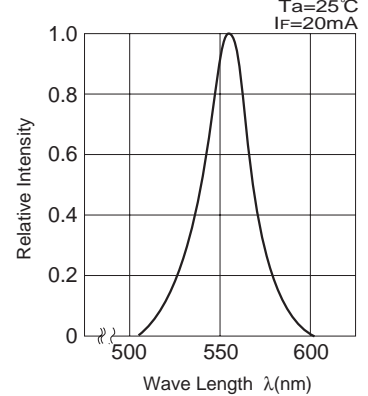
■ Ambient Temperature vs. Maximum Forward Current



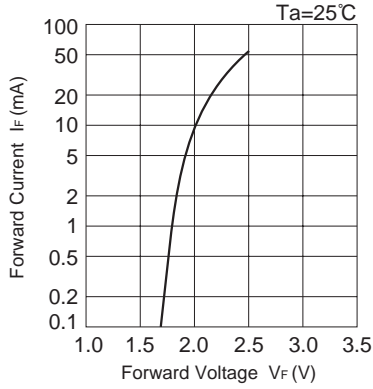
■ Forward Voltage vs. Ambient Temperature



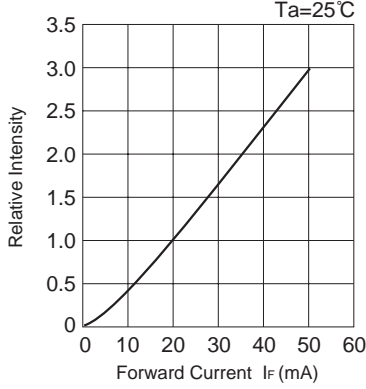
■ Spectral Distribution



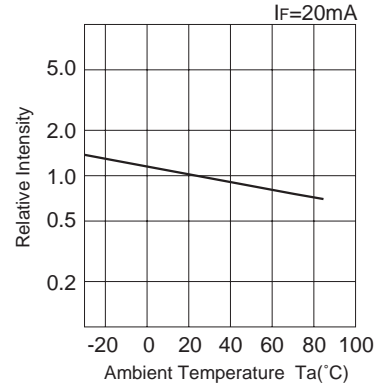
■ Forward Voltage vs. Forward Current



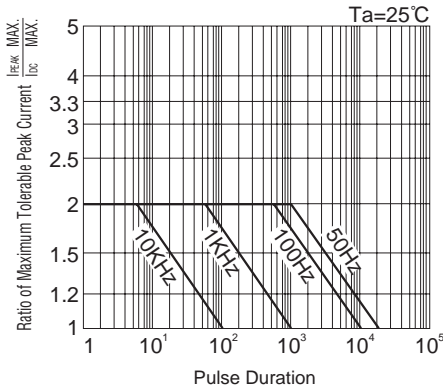
■ Forward Current vs. Relative Intensity



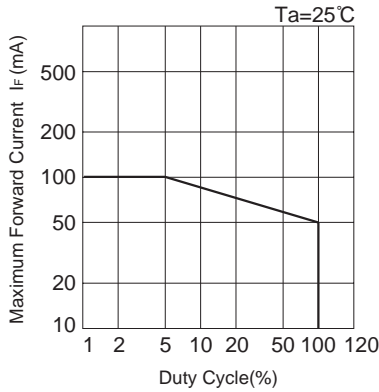
■ Ambient Temperature vs. Relative Intensity



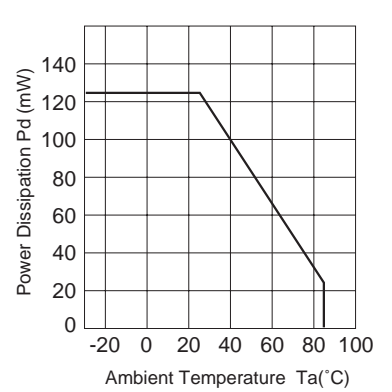
■ Pulse Duration vs. Maximum Tolerable Peak Current



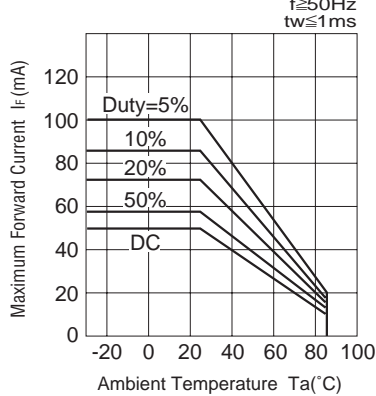
■ Duty Cycle vs. Maximum Forward Current



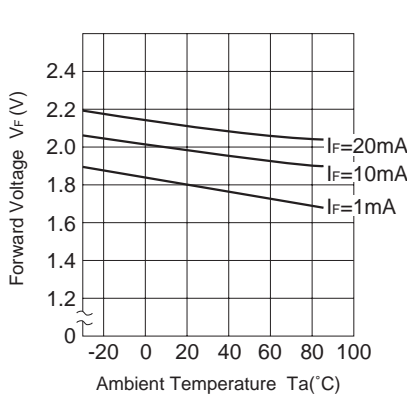
■ Power Dissipation vs. Ambient Temperature



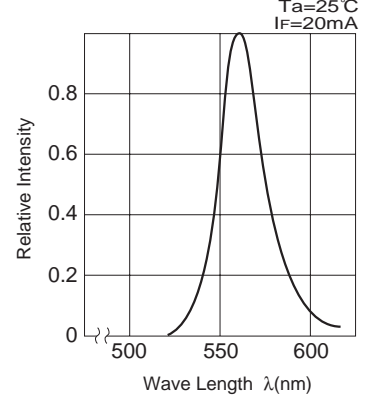
■ Ambient Temperature vs. Maximum Forward Current



■ Forward Voltage vs. Ambient Temperature



■ Spectral Distribution

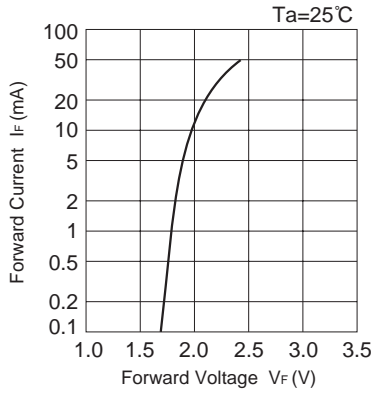




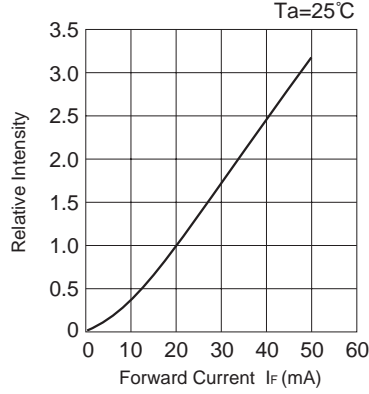
■ HIGH BRIGHTNESS TYPE LED

HPY5066X

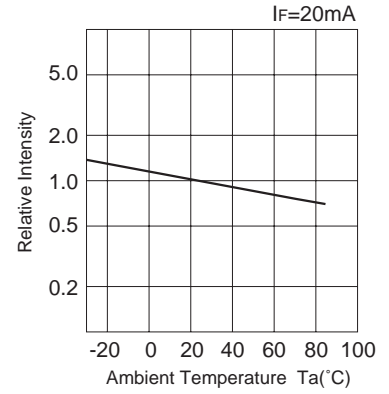
■ Forward Voltage vs. Forward Current



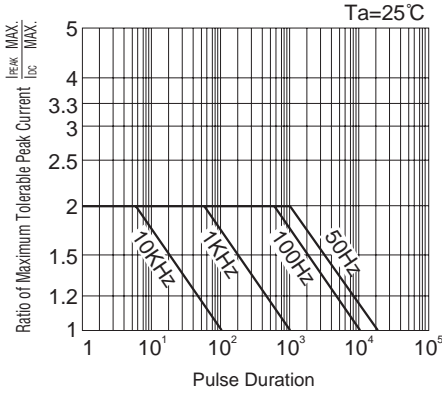
■ Forward Current vs. Relative Intensity



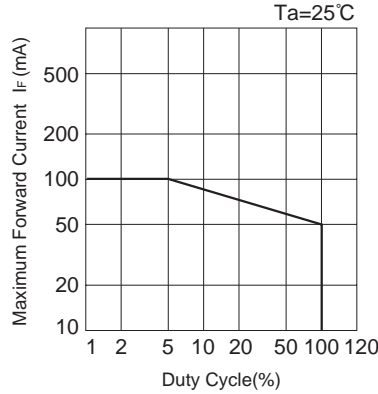
■ Ambient Temperature vs. Relative Intensity



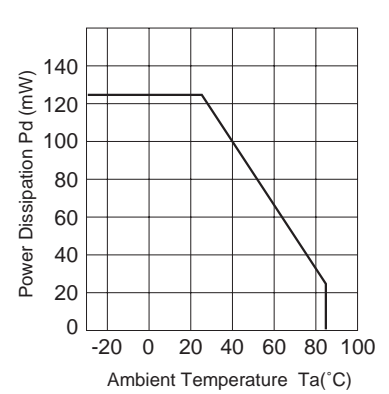
■ Pulse Duration vs. Maximum Tolerable Peak Current



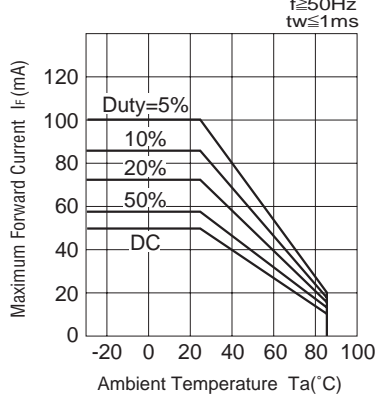
■ Duty Cycle vs. Maximum Forward Current



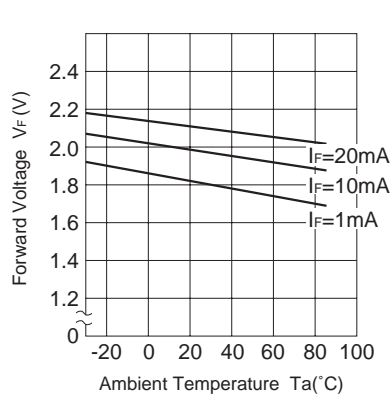
■ Power Dissipation vs. Ambient Temperature



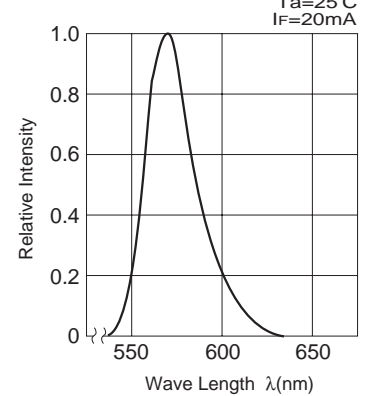
■ Ambient Temperature vs. Maximum Forward Current



■ Forward Voltage vs. Ambient Temperature



■ Spectral Distribution

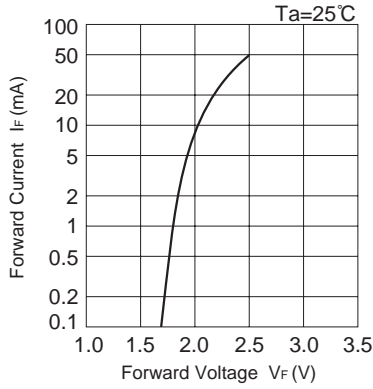




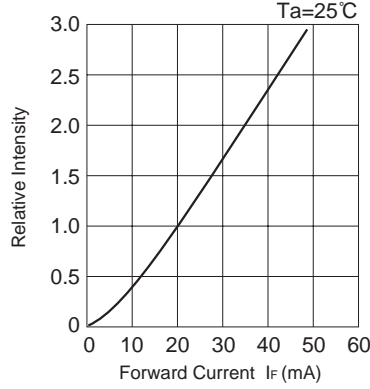
■ HIGH BRIGHTNESS TYPE LED

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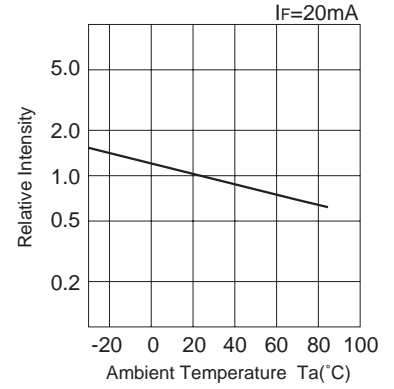
■ Forward Voltage vs. Forward Current



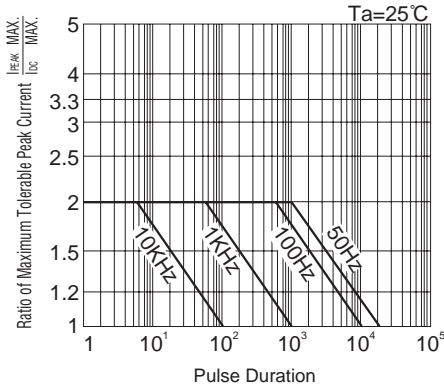
■ Forward Current vs. Relative Intensity



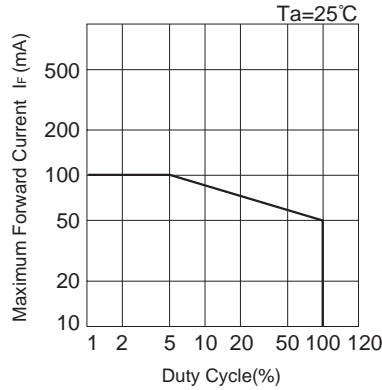
■ Ambient Temperature vs. Relative Intensity



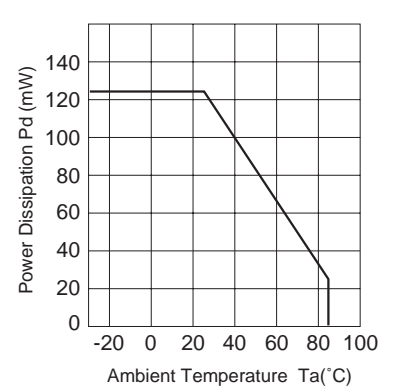
■ Pulse Duration vs. Maximum Tolerable Peak Current



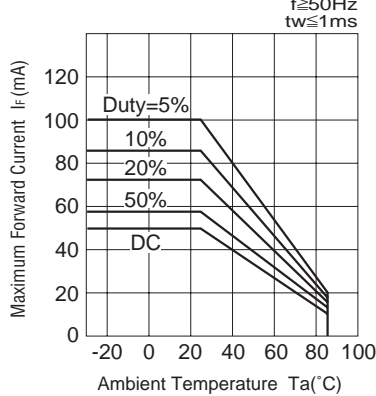
■ Duty Cycle vs. Maximum Forward Current



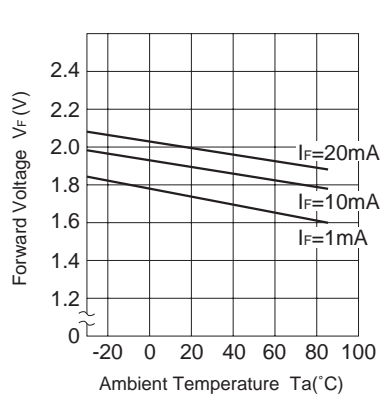
■ Power Dissipation vs. Ambient Temperature



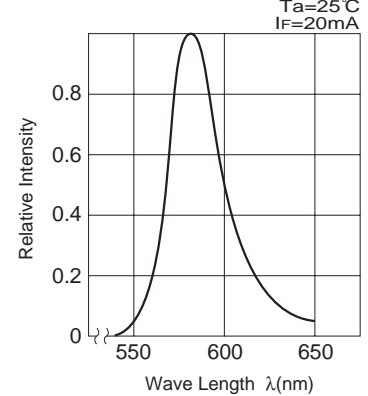
■ Ambient Temperature vs. Maximum Forward Current



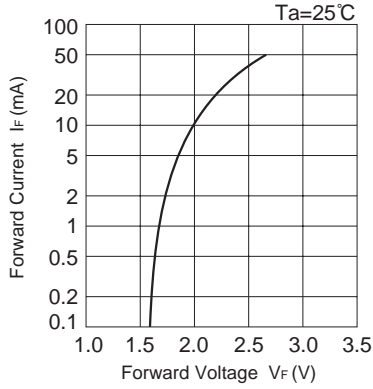
■ Forward Voltage vs. Ambient Temperature



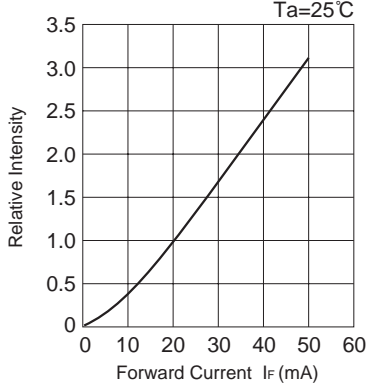
■ Spectral Distribution



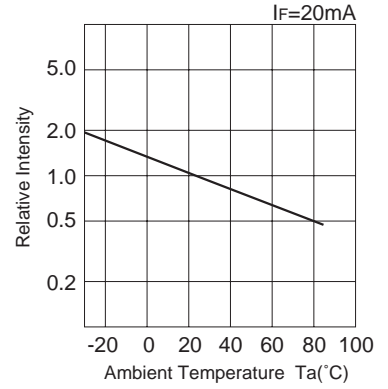
■ Forward Voltage vs. Forward Current



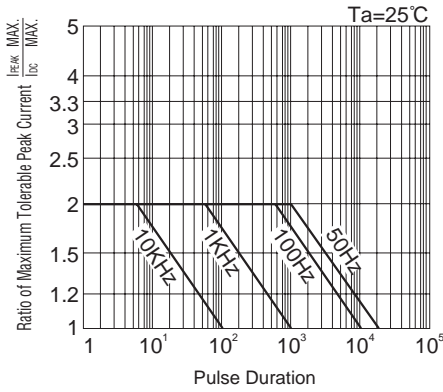
■ Forward Current vs. Relative Intensity



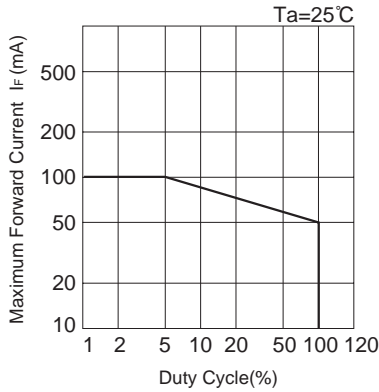
■ Ambient Temperature vs. Relative Intensity



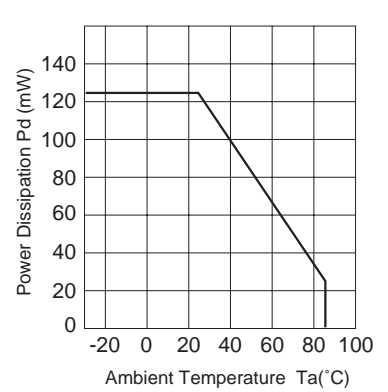
■ Pulse Duration vs. Maximum Tolerable Peak Current



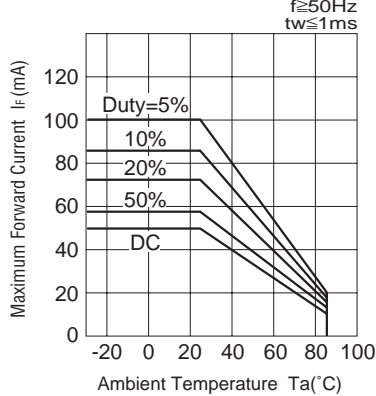
■ Duty Cycle vs. Maximum Forward Current



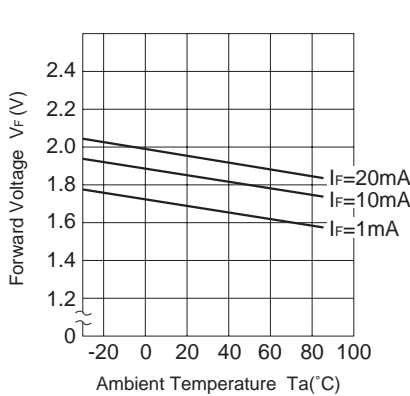
■ Power Dissipation vs. Ambient Temperature



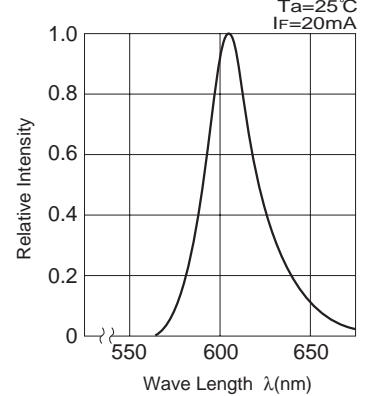
■ Ambient Temperature vs. Maximum Forward Current



■ Forward Voltage vs. Ambient Temperature



■ Spectral Distribution

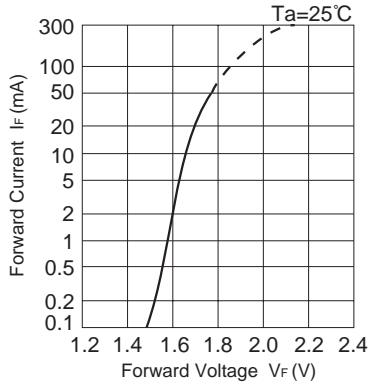




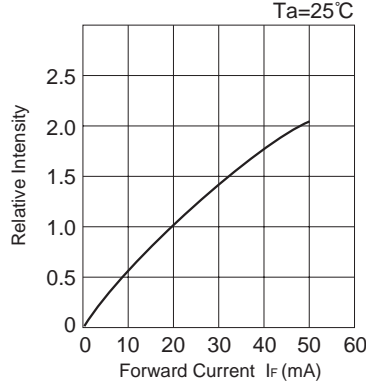
■ HIGH BRIGHTNESS TYPE LED

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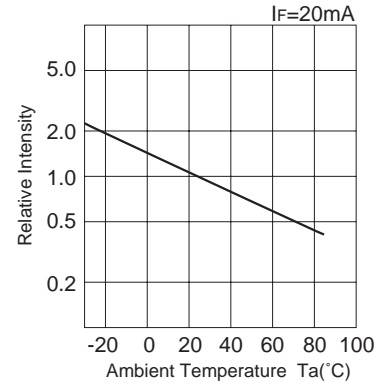
■ Forward Voltage vs. Forward Current



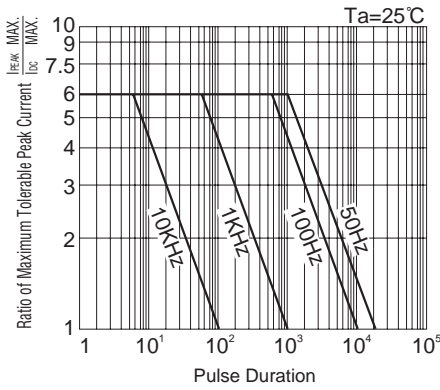
■ Forward Current vs. Relative Intensity



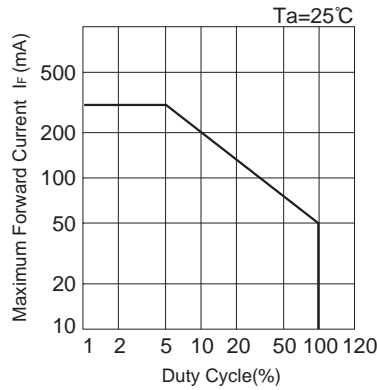
■ Ambient Temperature vs. Relative Intensity



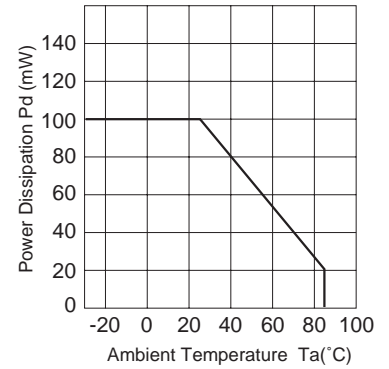
■ Pulse Duration vs. Maximum Tolerable Peak Current



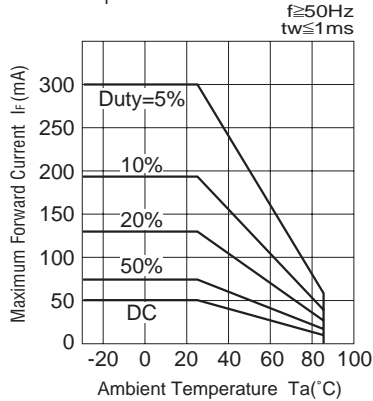
■ Duty Cycle vs. Maximum Forward Current



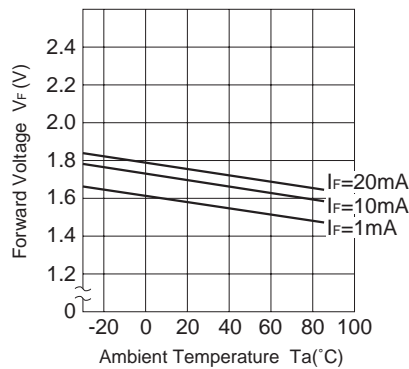
■ Power Dissipation vs. Ambient Temperature



■ Ambient Temperature vs. Maximum Forward Current



■ Forward Voltage vs. Ambient Temperature



■ Spectral Distribution

