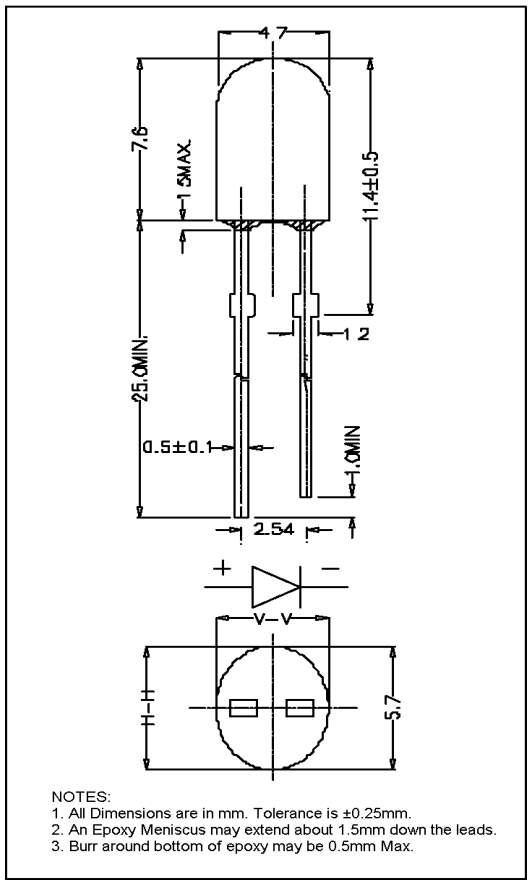
# Cotco 561 Series 75º Elliptical LEDs

**Features**

All Plastic Mold Type
High Luminous Intensity
Low Current Requirements
Wide Viewing Angle 75º x 40

**Applications**

Backlighting
Full Color/RGB Video Screens
Time/Temperature Boards
VMS




NOTES:
1. All Dimensions are in mm. Tolerance is ±0.25mm.
2. An Epoxy Meniscus may extend about 1.5mm down the leads.
3. Burr around bottom of epoxy may be 0.5mm Max.

## Series Line−Up

| Part Number | Color | Material |
|---|---|---|
| LO561MBL3−75P | Ultra Bright Blue | GaN |
| LO561MHR1−75Q | Ultra Bright High Efficency Red | InGaAlP |
| LO561MHR3−75P | Ultra High Efficiency Red | InGaAlP |
| LO561MPG3−75P | Ultra Bright Pure Green | GaN |
| LO561MSO3−75P | Ultra Bright Orange | InGaAlP |
| LO561MYL1−75Q | Ultra Bright Yellow | InGaAlP |
| LO561MYL3−75P | Ultra Bright Yellow | InGaAlP |

## Maximum Ratings (Ta=25ºC)

| Part Number | Forward Current $I_F$ | Reverse Voltage $V_R$ | Power Dissipation $P_D$ | Operating Temperature $T_{opr}$ | Storage Temperature $T_{stg}$ |
|---|---|---|---|---|---|
| LO561MBL3−75P | 25 | 5 | 120.00 | −20 ~ +75 | −30 ~ +80 |
| LO561MHR1−75Q | 50 | 5 | 200.00 | −40 ~ +95 | −40 ~ +100 |
| LO561MHR3−75P | 50 | 5 | 150.00 | −40 ~ +95 | −40 ~ +100 |
| LO561MPG3−75P | 25 | 5 | 120.00 | −20 ~ +75 | −30 ~ +80 |
| LO561MSO3−75P | 50 | 5 | 150.00 | −40 ~ +95 | −40 ~ +100 |
| LO561MYL1−75Q | 50 | 5 | 200.00 | −40 ~ +95 | −40 ~ +100 |
| LO561MYL3−75P | 50 | 5 | 150.00 | −40 ~ +95 | −40 ~ +100 |
| **Unit** | **mA** | **V** | **mW** | **°C** | **°C** |

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COTCO

# Cotco 561 Series 75º Elliptical LEDs

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

| Part Number | PWL nm λP | Material | View Angle $2\theta_{1/2}$ | Luminous Intensity $I_V$ | | | | Forward Voltage $V_F$ | | | | Rev Current $I_R$ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | min. | typ. | max. | IF@ | min. | typ. | max. | IF@ | max. | VR@ |
| LO561MBL3−75P | 465 | GaN | 75° x 40° | 52.00 | 110.00 | – | 20mA | 3.20 | 3.60 | 4.20 | 20mA | 100 | 5V |
| LO561MHR1−75Q | 630 | InGaAlP | 75° x 40° | 280.00 | 480.00 | – | 20mA | 1.70 | 2.00 | 2.50 | 20mA | 100 | 5V |
| LO561MHR3−75P | 636 | InGaAlP | 75° x 40° | 280.00 | 390.00 | – | 20mA | 1.70 | 2.00 | 2.50 | 20mA | 100 | 5V |
| LO561MPG3−75P | 520 | GaN | 75° x 40° | 200.00 | 390.00 | – | 20mA | 3.20 | 3.60 | 4.20 | 20mA | 100 | 5V |
| LO561MSO3−75P | 612 | InGaAlP | 75° x 40° | 280.00 | 480.00 | – | 20mA | 1.70 | 2.00 | 2.50 | 20mA | 100 | 5V |
| LO561MYL1−75Q | 593 | InGaAlP | 75° x 40° | 280.00 | 480.00 | – | 20mA | 1.70 | 2.00 | 2.50 | 20mA | 100 | 5V |
| LO561MYL3−75P | 590 | InGaAlP | 75° x 40° | 280.00 | 480.00 | – | 20mA | 1.70 | 2.00 | 2.50 | 20mA | 100 | 5V |
| – | nm | – | deg | mcd | | | – | V | | | – | mA | – |


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**LO561MBL3−75P Graphs**

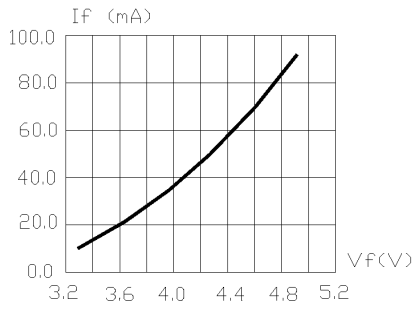


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

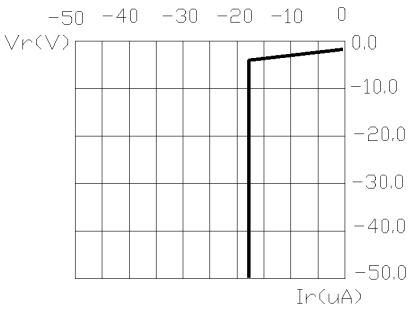


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

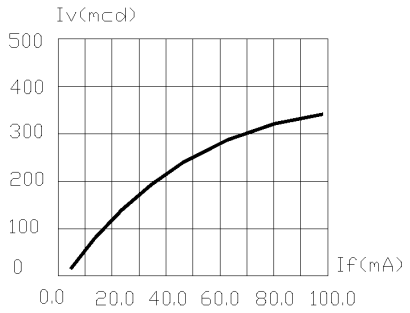


FIG.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT.

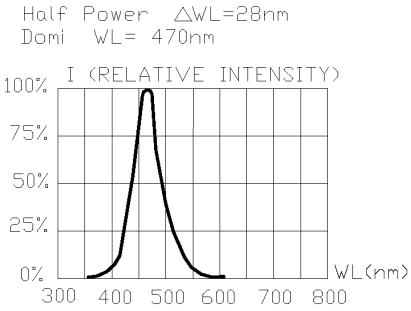


FIG.4 RELATIVE INTENSITY VS. WAVE LENGTH.

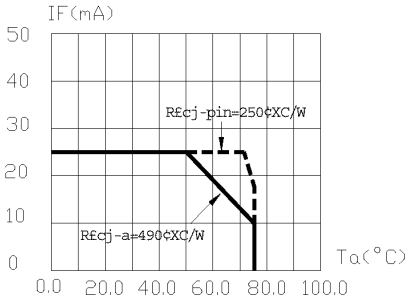


FIG.5 MAXIMUN FORWARD DC CURRENT VS AMBIENT TEMPERATURE . DERATING BASED ON Tjmax=95°c

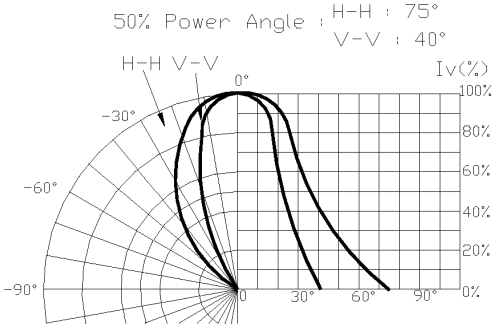


FIG.6 SPATIAL DISTRIBUTION.

1.Cathode PAD Area (0.18 ×0.18inch$^2$)
2. Height above nominal seating plane in inches(0.3inch)

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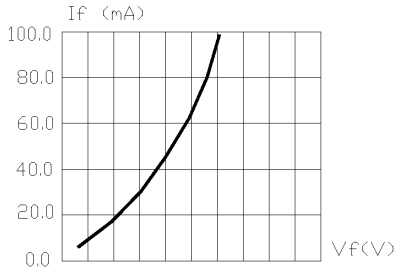
## LO561MHR1−75Q Graphs

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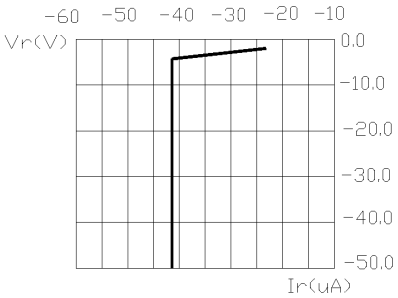



FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

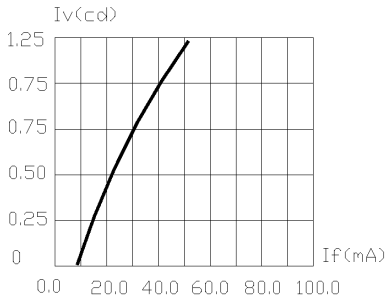



FIG.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT.

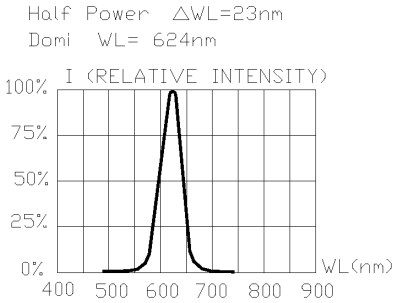



FIG.4 RELATIVE INTENSITY VS. WAVE LENGTH.

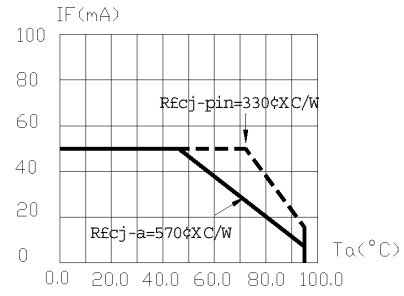
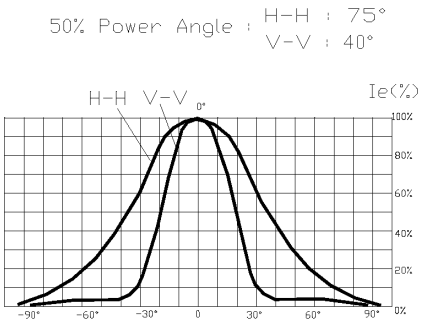



FIG.5 MAXIMUM FORWARD DC CURRENT VS TEMPERATURE. DERATING BASED ON Tjmax=105°C

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1.Cathode PAD Area (0.18 ×0.18inch$^2$)
2.Height above nominal seating plane in inches(0.3inch)

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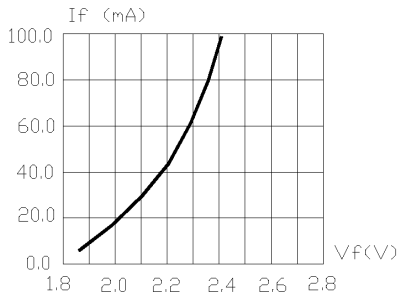
**LO561MHR3−75P Graphs**

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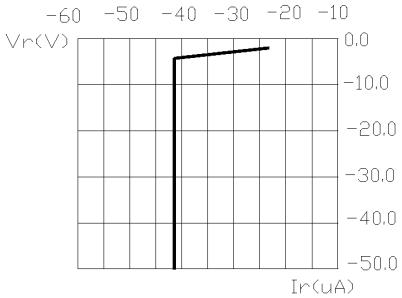



FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

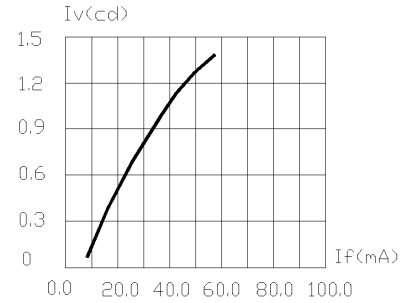



FIG.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT.

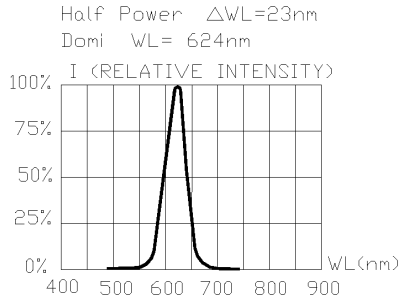
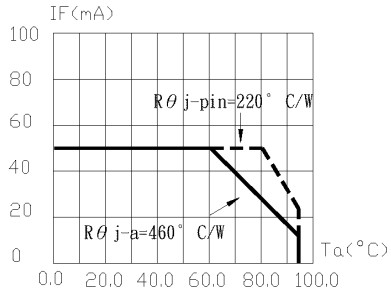



FIG.4 RELATIVE INTENSITY VS. WAVE LENGTH.

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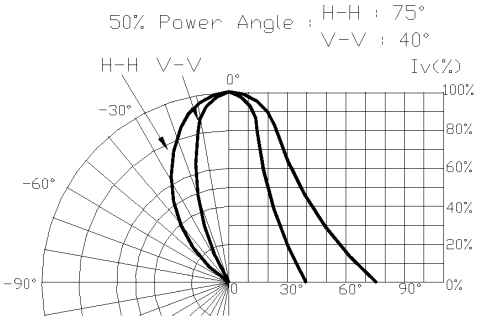


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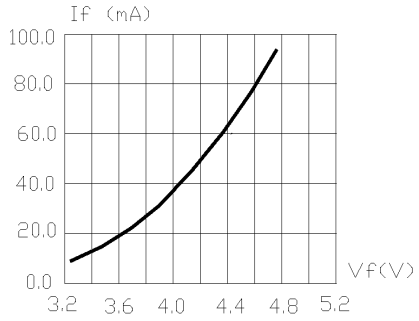


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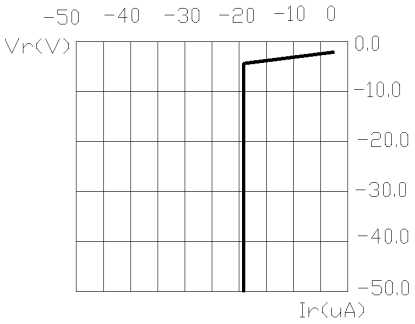


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

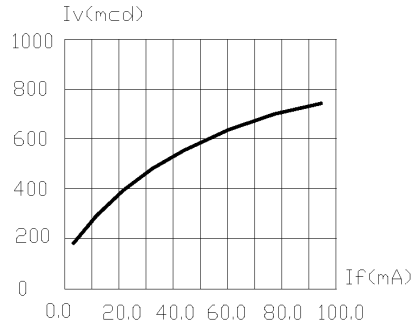


FIG.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT.

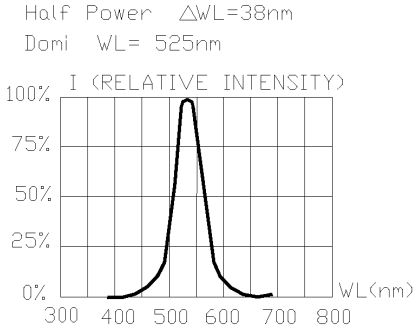


FIG.4 RELATIVE INTENSITY VS. WAVE LENGTH.

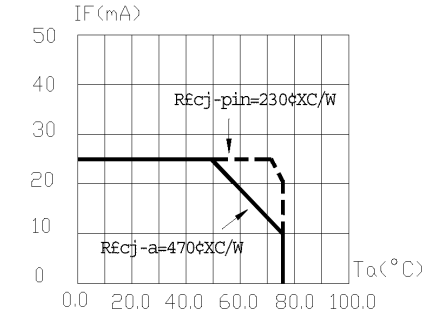


FIG.5 MAXIMUM FORWARD DC CURRENT VS AMBIENT TEMPERATURE. DERATING BASED ON Tjmax=95°C

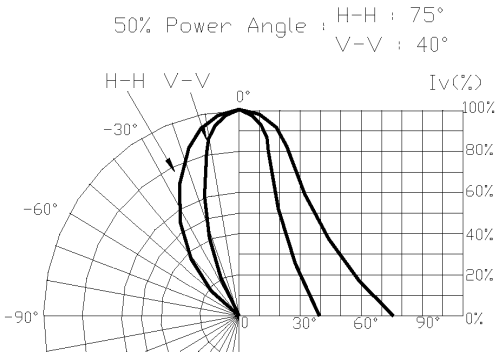


FIG.6 SPATIAL DISTRIBUTION.

1.Cathode PAD Area (0.18 ×0.18inch$^2$)
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**LO561MSO3−75P Graphs**

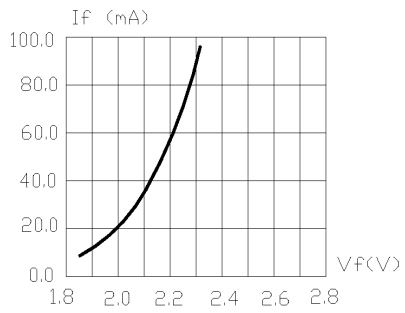



FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

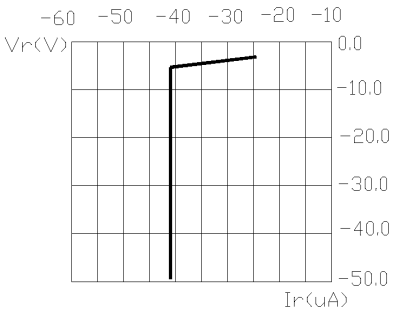



FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

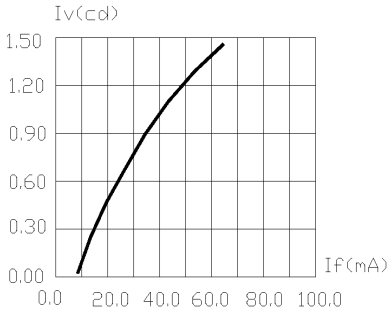



FIG.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT.

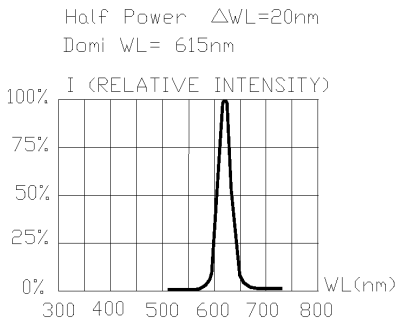



FIG.4 RELATIVE INTENSITY VS. WAVE LENGTH.

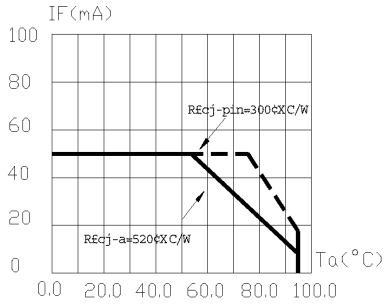
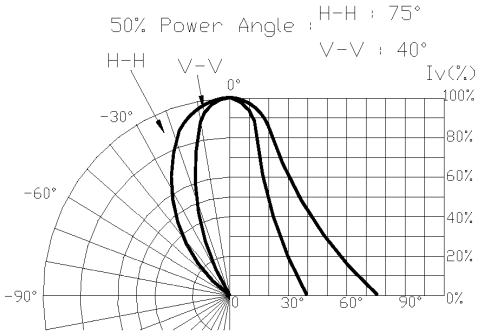



FIG.5 MAXIMUM FORWARD DC CURRENT VS AMBIENT TEMPERATURE. DERATING BASED ON Tjmax=105°C

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**LO561MYL1−75Q Graphs**

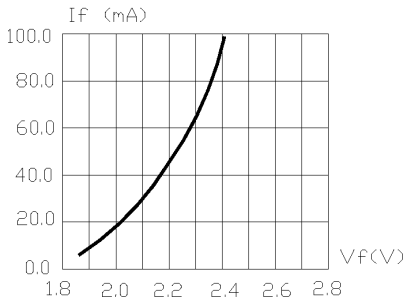



FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

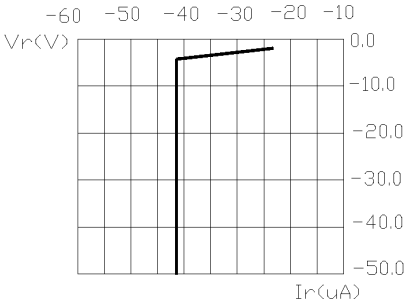



FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

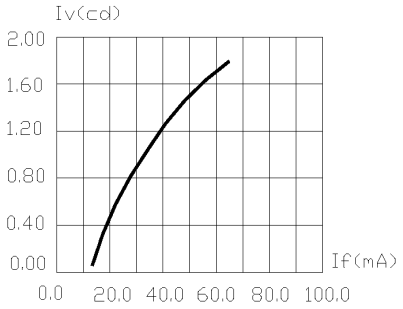



FIG.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT.

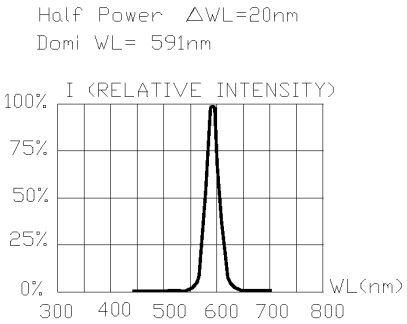
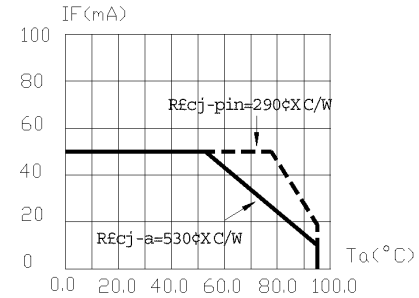



FIG.4 RELATIVE INTENSITY VS. WAVE LENGTH.

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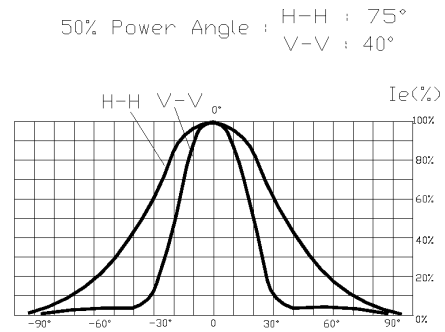


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**LO561MYL3−75P Graphs**

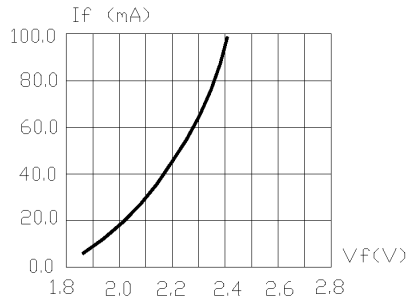


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

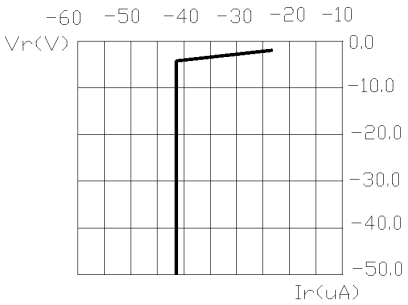


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

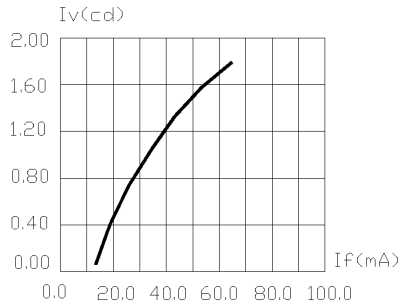


FIG.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT.

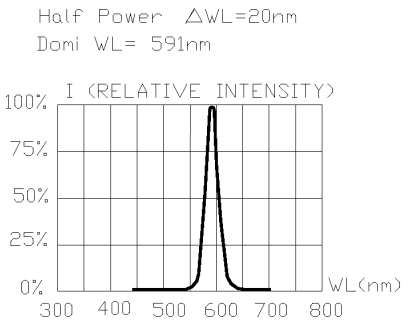


FIG.4 RELATIVE INTENSITY VS. WAVE LENGTH.

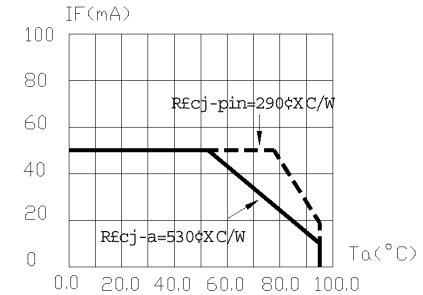


FIG.5 MAXIMUM FORWARD DC CURRENT VS TEMPERATURE. DERATING BASED ON Tjmax=105°C

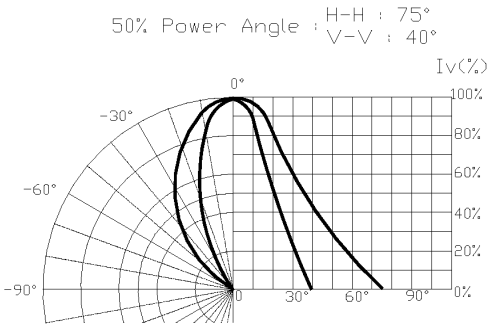


FIG.6 SPATIAL DISTRIBUTION.

1.Cathode PAD Area (0.18 ×0.18inch$^2$)
2.Height above nominal seating plane in inches(0.3inch)

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