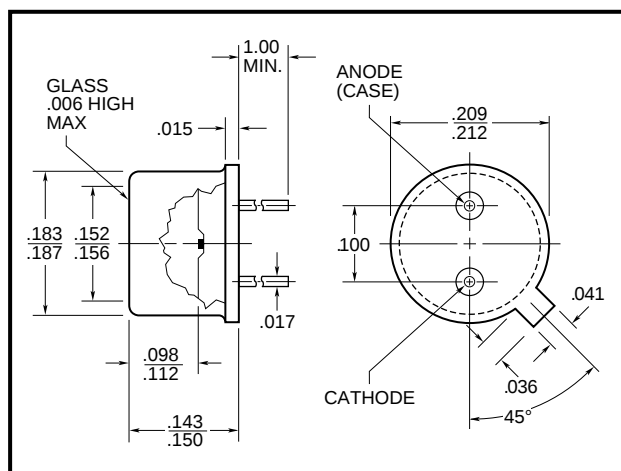


**FEATURES**

- Extended operating temperature range
- No internal coatings
- No derating or heat sink required to 80°C

All surfaces are gold plated. Dimensions are nominal values in inches unless otherwise specified. Window caps are welded to the case.

**ELECTRO-OPTICAL CHARACTERISTICS AT 25°C**

| PARAMETERS                                 | TEST CONDITIONS       | MIN | TYP  | MAX | UNITS           |
|--------------------------------------------|-----------------------|-----|------|-----|-----------------|
| Total Power Output, $P_O$                  | $I_F = 100\text{mA}$  | 7   | 9    |     | mW              |
| Peak Emission Wavelength, $\lambda_P$      | $I_F = 50\text{mA}$   |     | 880  |     | nm              |
| Spectral Bandwidth at 50%, $\Delta\lambda$ |                       |     | 80   |     | nm              |
| Half Intensity Beam Angle, $\theta$        |                       |     | 80   |     | Deg             |
| Forward Voltage, $V_F$                     | $I_F = 100\text{mA}$  |     | 1.55 | 1.9 | Volts           |
| Reverse Breakdown Voltage, $V_R$           | $I_R = 10\mu\text{A}$ | 5   | 30   |     | Volts           |
| Capacitance, C                             | $V_R = 0\text{V}$     |     | 17   |     | pF              |
| Rise Time                                  |                       |     | 0.5  |     | $\mu\text{sec}$ |
| Fall Time                                  |                       |     | 0.5  |     | $\mu\text{sec}$ |

**ABSOLUTE MAXIMUM RATINGS AT 25°C CASE**

|                                                              |       |
|--------------------------------------------------------------|-------|
| Power Dissipation <sup>1</sup>                               | 190mW |
| Continuous Forward Current                                   | 100mA |
| Peak Forward Current (10 $\mu\text{s}$ , 300Hz) <sup>2</sup> | 3A    |
| Reverse Voltage                                              | 5V    |
| Lead Soldering Temperature (1/16" from case for 10sec)       | 240°C |

<sup>1</sup>Derate per Thermal Derating Curve above 25°C

<sup>2</sup>Derate linearly above 25°C

**THERMAL PARAMETERS**

|                                             |                 |
|---------------------------------------------|-----------------|
| Storage and Operating Temperature Range     | -65°C TO 150°C  |
| Maximum Junction Temperature                | 150°C           |
| Thermal Resistance, $R_{THJA}$ <sup>1</sup> | 370°C/W Typical |
| Thermal Resistance, $R_{THJA}$ <sup>2</sup> | 120°C/W Typical |

<sup>1</sup>Heat transfer minimized by measuring in still air with minimum heat conducting through leads

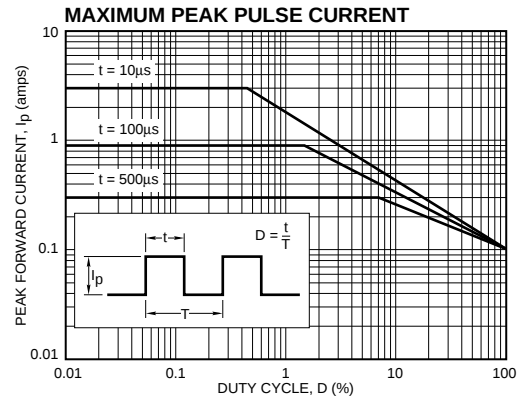
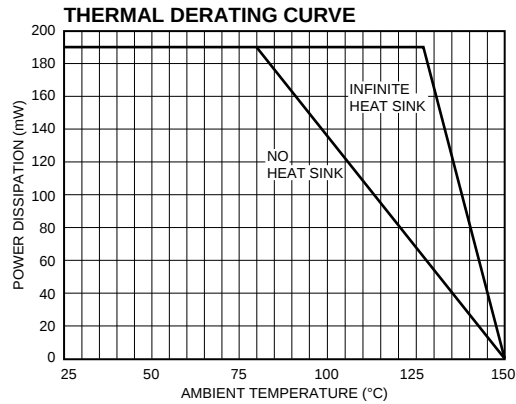
<sup>2</sup>Air circulating at a rapid rate to keep case temperature at 25°C



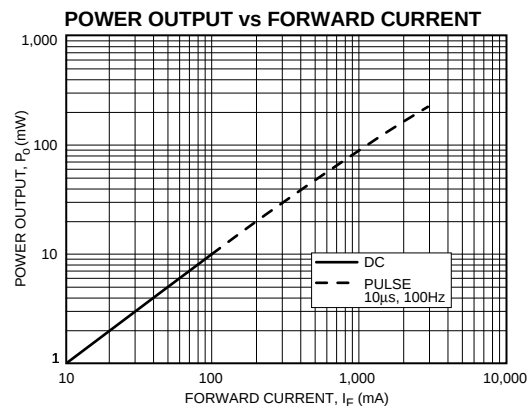
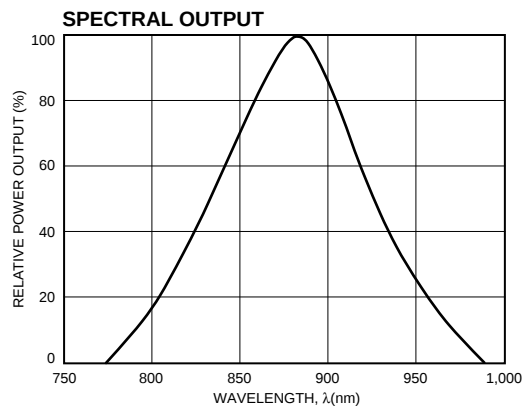
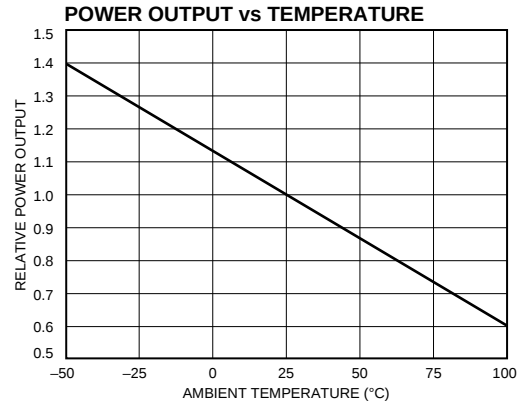
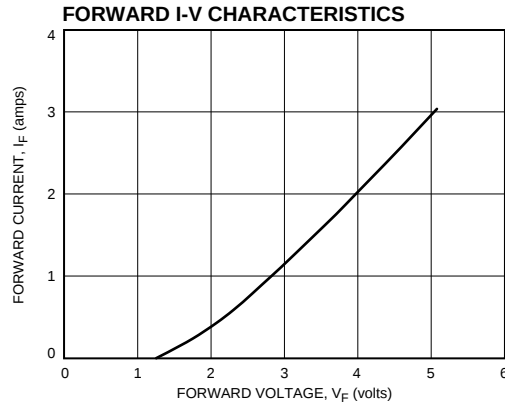
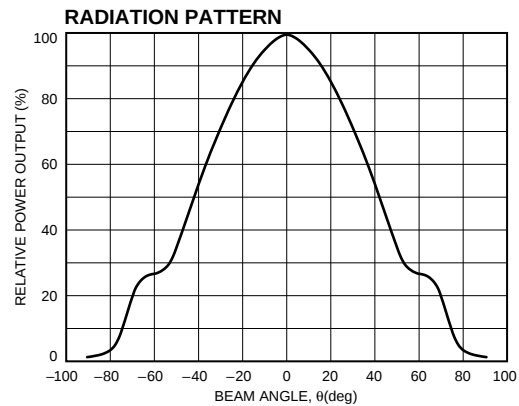
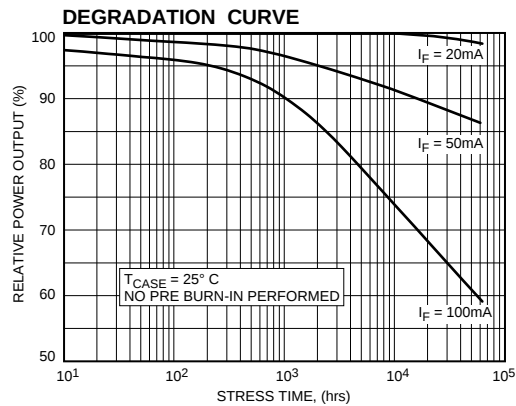
OPTO DIODE CORP.

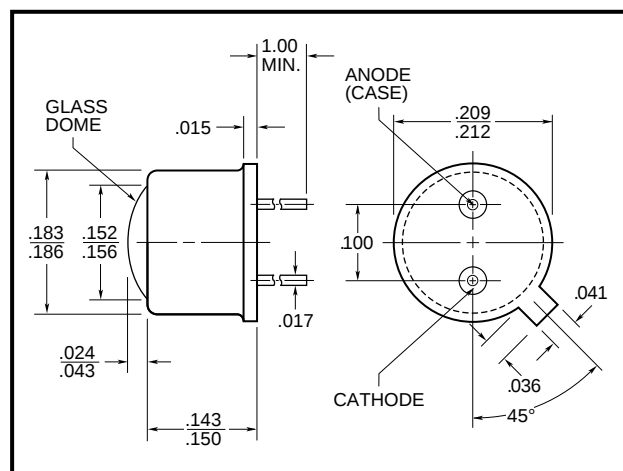
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MAXIMUM RATINGS



TYPICAL CHARACTERISTICS





## FEATURES

- Extended operating temperature range
- No internal coatings
- No derating or heat sink required to 80°C

All surfaces are gold plated. Dimensions are nominal values in inches unless otherwise specified. Window caps are welded to the case.

## ELECTRO-OPTICAL CHARACTERISTICS AT 25°C

| PARAMETERS                                 | TEST CONDITIONS       | MIN | TYP  | MAX | UNITS           |
|--------------------------------------------|-----------------------|-----|------|-----|-----------------|
| Total Power Output, $P_O$                  | $I_F = 100\text{mA}$  | 6   | 8.5  |     | mW              |
| Peak Emission Wavelength, $\lambda_P$      | $I_F = 50\text{mA}$   |     | 880  |     | nm              |
| Spectral Bandwidth at 50%, $\Delta\lambda$ |                       |     | 80   |     | nm              |
| Half Intensity Beam Angle, $\theta$        |                       |     | 35   |     | Deg             |
| Forward Voltage, $V_F$                     | $I_F = 100\text{mA}$  |     | 1.55 | 1.9 | Volts           |
| Reverse Breakdown Voltage, $V_R$           | $I_R = 10\mu\text{A}$ | 5   | 30   |     | Volts           |
| Capacitance, C                             | $V_R = 0\text{V}$     |     | 17   |     | pF              |
| Rise Time                                  |                       |     | 0.5  |     | $\mu\text{sec}$ |
| Fall Time                                  |                       |     | 0.5  |     | $\mu\text{sec}$ |

## ABSOLUTE MAXIMUM RATINGS AT 25°C CASE

|                                                              |       |
|--------------------------------------------------------------|-------|
| Power Dissipation <sup>1</sup>                               | 190mW |
| Continuous Forward Current                                   | 100mA |
| Peak Forward Current (10 $\mu\text{s}$ , 400Hz) <sup>2</sup> | 3A    |
| Reverse Voltage                                              | 5V    |
| Lead Soldering Temperature (1/16" from case for 10sec)       | 240°C |

<sup>1</sup>Derate per Thermal Derating Curve above 25°C

<sup>2</sup>Derate linearly above 25°C

## THERMAL PARAMETERS

|                                             |                 |
|---------------------------------------------|-----------------|
| Storage and Operating Temperature Range     | -65°C TO 150°C  |
| Maximum Junction Temperature                | 150°C           |
| Thermal Resistance, $R_{THJA}$ <sup>1</sup> | 370°C/W Typical |
| Thermal Resistance, $R_{THJA}$ <sup>2</sup> | 120°C/W Typical |

<sup>1</sup>Heat transfer minimized by measuring in still air with minimum heat conducting through leads

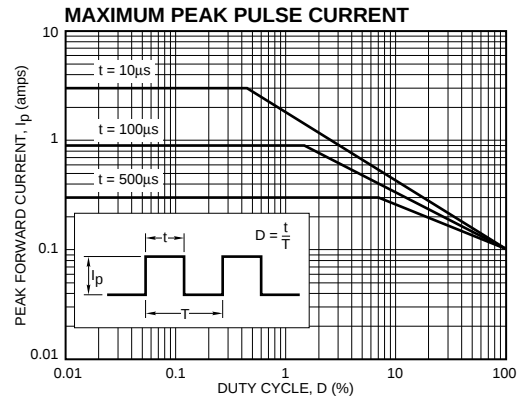
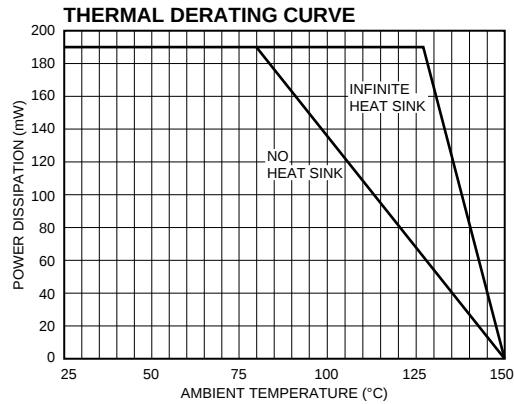
<sup>2</sup>Air circulating at a rapid rate to keep case temperature at 25°C



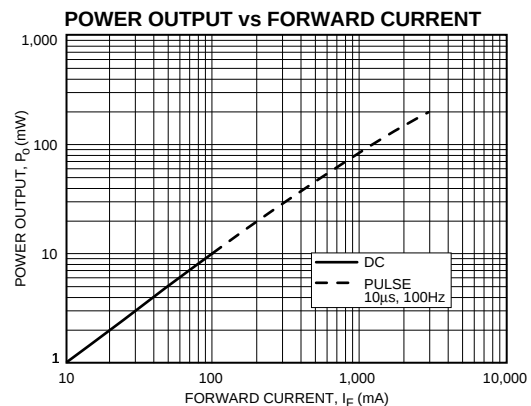
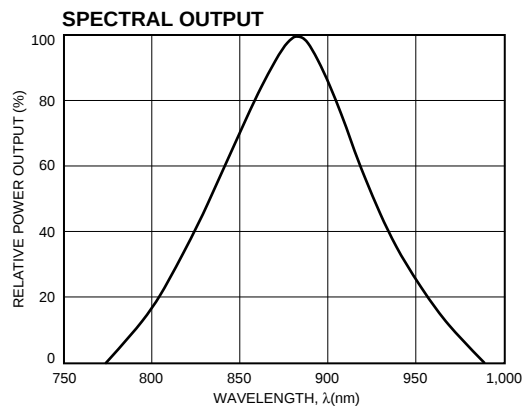
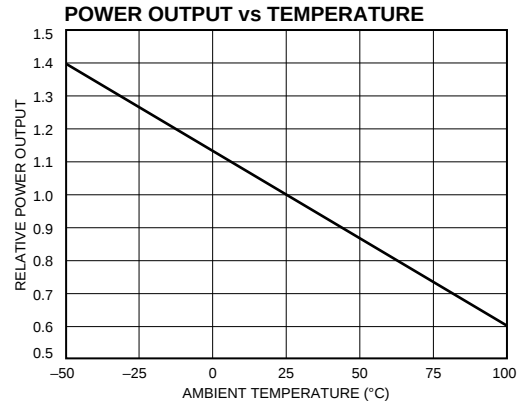
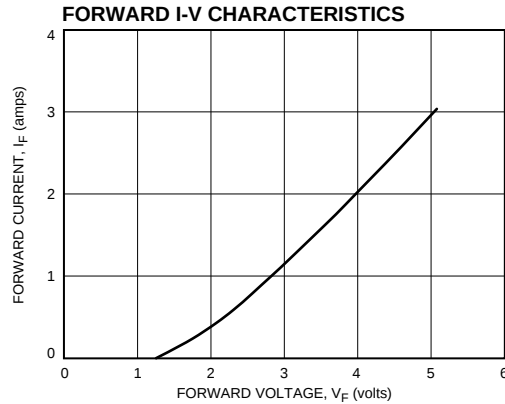
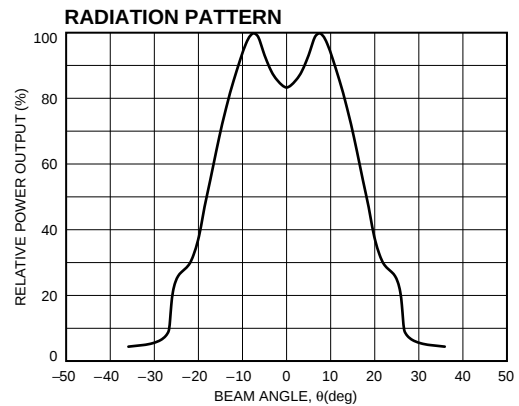
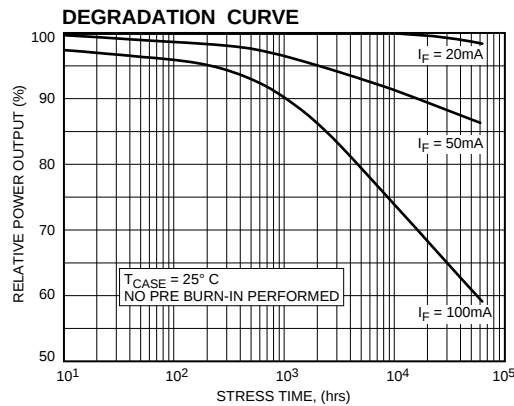
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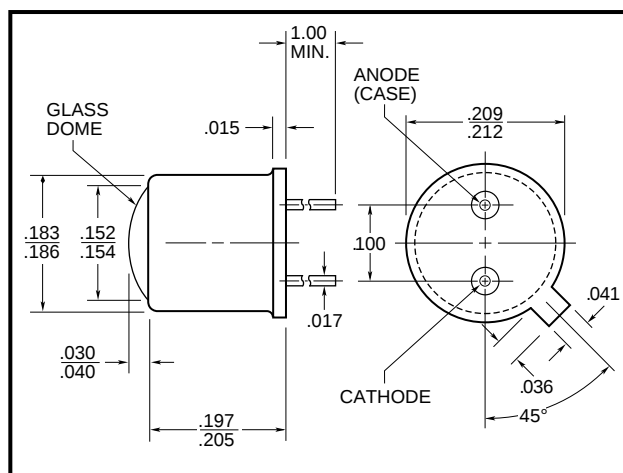
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MAXIMUM RATINGS



TYPICAL CHARACTERISTICS



**FEATURES**

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**ELECTRO-OPTICAL CHARACTERISTICS AT 25°C**

| PARAMETERS                                 | TEST CONDITIONS       | MIN | TYP  | MAX | UNITS           |
|--------------------------------------------|-----------------------|-----|------|-----|-----------------|
| Total Power Output, $P_o$                  | $I_F = 100\text{mA}$  | 6   | 8    |     | mW              |
| Peak Emission Wavelength, $\lambda_p$      | $I_F = 50\text{mA}$   |     | 880  |     | nm              |
| Spectral Bandwidth at 50%, $\Delta\lambda$ |                       |     | 80   |     | nm              |
| Half Intensity Beam Angle, $\theta$        |                       |     | 8    |     | Deg             |
| Forward Voltage, $V_F$                     | $I_F = 100\text{mA}$  |     | 1.55 | 1.9 | Volts           |
| Reverse Breakdown Voltage, $V_R$           | $I_R = 10\mu\text{A}$ | 5   | 30   |     | Volts           |
| Capacitance, C                             | $V_R = 0\text{V}$     |     | 17   |     | pF              |
| Rise Time                                  |                       |     | 0.5  |     | $\mu\text{sec}$ |
| Fall Time                                  |                       |     | 0.5  |     | $\mu\text{sec}$ |

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|                                                              |       |
|--------------------------------------------------------------|-------|
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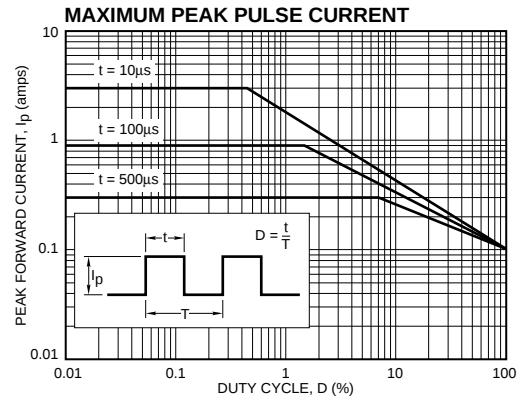
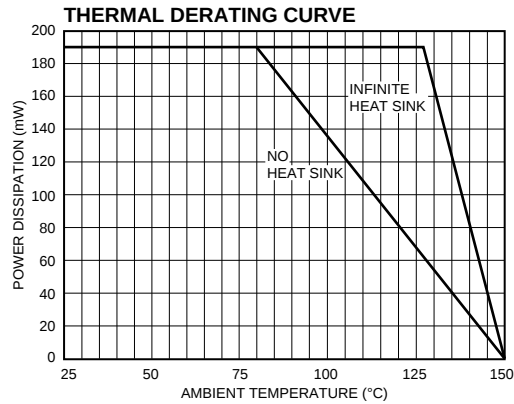
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