

**62096 660 nm RED LIGHT EMITTING DIODE "PIGTAIL"
(Proton Tolerant LED)**



09/22/03

Features:

- Hermetically sealed
- High output, 660nm
- Small package
- PC board mountable

Applications:

- Incremental encoding
- Reflective sensors
- Position sensors
- Level sensors

DESCRIPTION

The **62096** is a P-N 660 nm Light Emitting Diode in a lensed coaxial package designed to be mounted in a single-clad printed circuit board. It is spectrally and mechanically matched to companion phototransistors and photodarlington with its narrow beam angle lens and small size which make it ideal for use in optical encoders, card reader arrays, etc. This device is also available with a lead attached to the case so that it may be connected without the use of a printed board. Available binned to customer specifications and/or screened to MIL-PRF-19500.

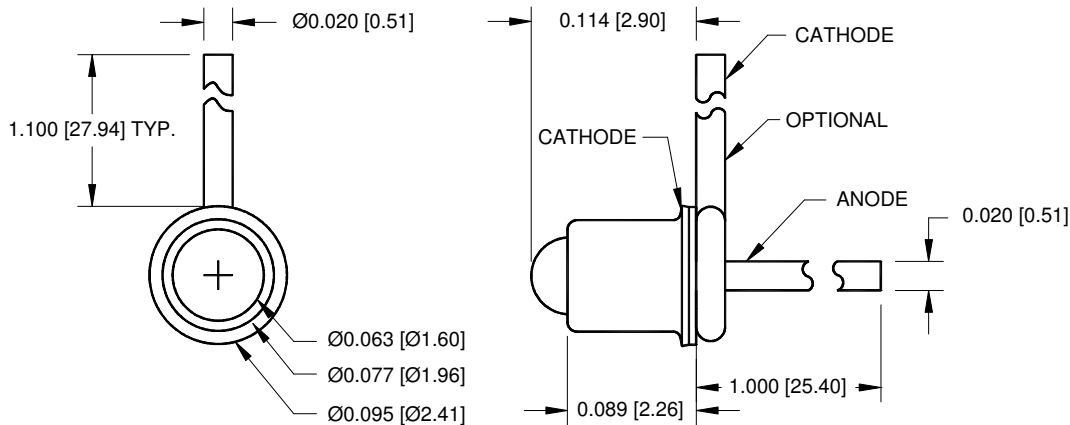
ABSOLUTE MAXIMUM RATINGS

| | |
|---|-----------------|
| Reverse Voltage (at 25°C case temperature) | 3Vdc |
| Forward Current-Continuous (Note 1) | 100mA |
| Storage Temperature..... | -65°C to +150°C |
| Operating Temperature..... | -55°C to +100°C |
| Soldering Temperature (10 seconds, 1/16" from case) | 240°C |

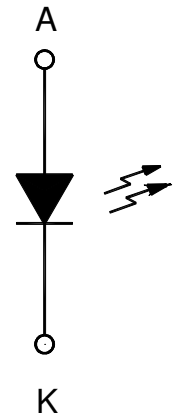
NOTES:

1. Derate linearly at the rate of 1.33 mA/°C above 25°C.

Package Dimensions



Schematic Diagram



ALL DIMENSIONS ARE IN INCHES [MILLIMETERS]

62096

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ELECTRICAL CHARACTERISTICS

T_A = 25°C unless otherwise specified.

| PARAMETER | SYMBOL | MIN | TYP | MAX | UNITS | TEST CONDITIONS | NOTE |
|--------------------------------|---------------------|-----|-----|-----|---------|-----------------------|------|
| Output Power | P _O | 2.0 | 2.2 | | mW | I _F = 50mA | |
| Forward Voltage | V _F | | | 2.4 | V | I _F = 50mA | |
| Reverse Breakdown Voltage | B _{VR} | 3 | | | V | I _H = 10μA | |
| Radiation Rise Time | t _R | | 100 | | ns | | |
| Peak Wavelength | λ _P | | 660 | | nm | I _F = 50mA | |
| Beam Angle | θ | | 12 | | degrees | | 1 |
| Forward Max Continuous Current | I _{F(MAX)} | | | 100 | mA | 25°C Case | 2 |

NOTES:

1. Angle between half-intensity points.
2. Running this device at maximum rated forward current degrades life with out heat sinking.

RECOMMENDED OPERATING CONDITIONS:

| PARAMETER | SYMBOL | MIN | MAX | UNITS |
|-----------------|----------------|-----|-----|-------|
| Forward Current | I _F | 50 | 100 | mA |

SELECTION GUIDE

| PART NUMBER | PART DESCRIPTION | P _O Range, min |
|-------------|--------------------------------|---------------------------|
| 62096-004 | Commercial | 2.0 mW |
| 62096-104 | (-55° to +100°C) 100% Screened | 2.0 mW |

NOTE: Add L to end of dash number to signify addition of loop lead requirement.