

62040 1N6609
1N6610
1N6611

JAN AND JANTX QUALIFIED, HI-BRITE
HERMETIC LED INDICATORS



09/24/03

Features:

- Hermetically sealed
- Choice of colors (Red, Yellow, Green)
- Panel Mount versions with wire wrappable leads
- Designed for Hi-Reliability applications

Applications:

- P.C. Board Fault Indicator
- Logic Status Indicator
- Binary Data Display
- Power supply on/off indicator
- Wide viewing angle requirements

DESCRIPTION

The **1N6609**, **1N6610** and **1N6611** series indicators are hermetically sealed in TO-46 packages with a clear glass lens which provides improved viewability in bright sunlight. The 1N6609 (red) and 1N6610 (yellow) indicators utilize a high efficiency GaAsP on GaP LED, while the 1N6611 (green) indicator utilizes a GaP on GaP LED. Panel mount versions with wire wrap leads are available including necessary hardware. All versions are available in commercial, JAN or JANTX screened.

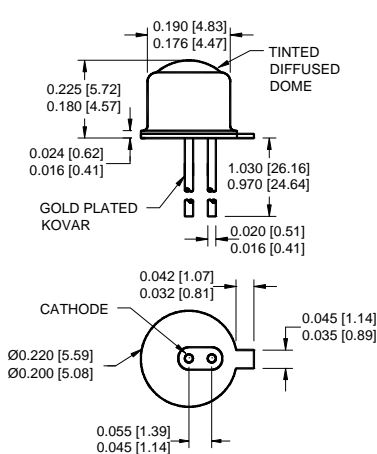
ABSOLUTE MAXIMUM RATINGS

| | |
|--|-----------------|
| Reverse Voltage | 5Vdc |
| Power Dissipation (Note 1) | 120mW |
| Forward Current-Continuous (Note 2) | 35mA |
| Storage Temperature..... | -65°C to +100°C |
| Operating Temperature..... | -55°C to +100°C |
| Lead Soldering Temperature (10 seconds, 1/16" from case) | 260°C |
| Maximum Mounting Torque (Panel mount version) | 25in•lbs |

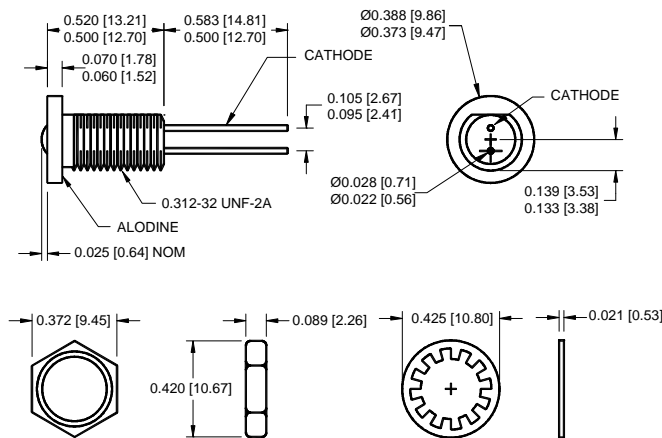
Notes:

1. Derate at the rate of 1.6 mW/°C above 25°C.
2. Derate at the rate of 0.46 mA/°C above 25°C.

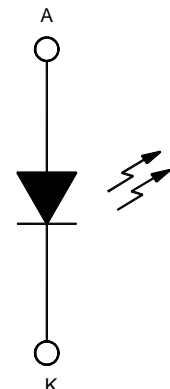
Indicator Dimensions



Panel Mount Dimensions



Schematic Diagram



ALL DIMENSIONS ARE IN INCHES [MILLIMETERS]

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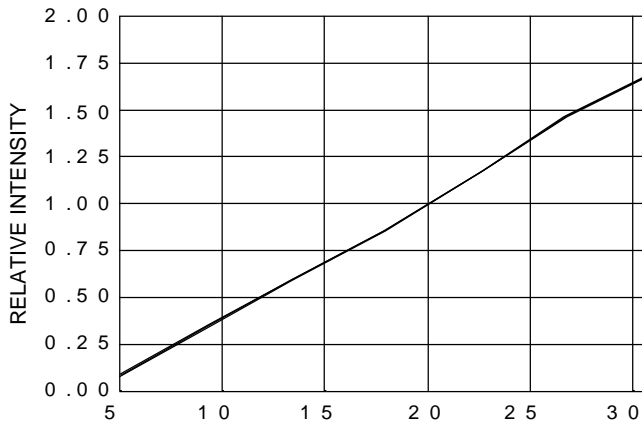
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ELECTRICAL CHARACTERISTICS $T_A=25^{\circ}\text{C}$

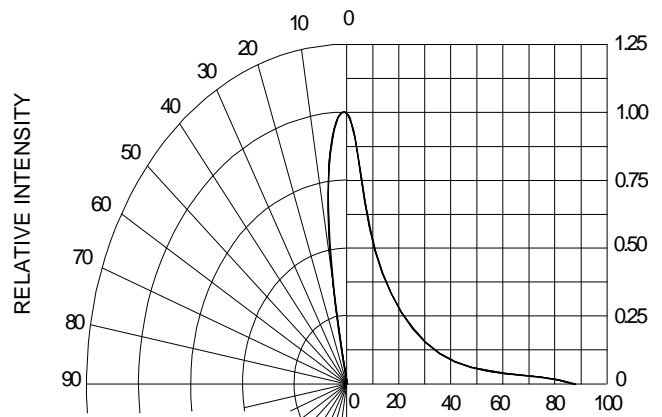
| PART NUMBER | COLOR | TEST CONDITION | PARAMETER LIMITS | | | |
|-------------|--------|----------------|------------------|------------------------|----------------------------------|---------------|
| | | | I_F mA | PEAK λ TYP. | $I_{V1\theta=0^{\circ}}$ MIN. | V_F MAX. |
| 62040-1XX | RED | 20 | 635 | 20 mcd | 3V | 100pF |
| 62040-2XX | YELLOW | 20 | 585 | 20 mcd | 3V | 100pF |
| 62040-3XX | GREEN | 20 | 570 | 20 mcd | 3V | 100pF |

Relative Luminous Intensity vs Forward Current
(Normalized at 20 mA)



I_F - Forward Current - mA

Relative Luminous Intensity vs. Angular Displacement



Angular Displacement

RECOMMENDED OPERATING CONDITIONS:

| PARAMETER | SYMBOL | MIN | MAX | UNITS |
|-----------------------|--------|-----|------|--------------------|
| Forward Current | I_F | 20 | 35 | mA |
| Operating Temperature | T_A | -55 | +100 | $^{\circ}\text{C}$ |

SELECTION GUIDE

| PART NUMBER | PART DESCRIPTION | CONTROLLING MIL DOCUMENT |
|-------------|---|--------------------------|
| 62040-101 | Commercial, Red LED, TO-46 | 1N6609 |
| 62040-102 | JAN Screened, Red LED, TO-46 | MIL-PRF-19500/519C |
| 62040-103 | JANTX Screened, Red LED, TO-46 | MIL-PRF-19500/519C |
| 62040-111 | Commercial, Red LED, Panel Mount | |
| 62040-112 | JAN Screened, Red LED, Panel Mount | MIL-PRF-19500/519C |
| 62040-113 | JANTX Screened, Red LED, Panel Mount | MIL-PRF-19500/519C |
| 62040-201 | Commercial, Yellow LED, TO-46 | 1N6610 |
| 62040-202 | JAN Screened, Yellow LED, TO-46 | MIL-PRF-19500/520C |
| 62040-203 | JANTX Screened, Yellow LED, TO-46 | MIL-PRF-19500/520C |
| 62040-211 | Commercial, Yellow LED, Panel Mount | |
| 62040-212 | JAN Screened, Yellow LED, Panel Mount | MIL-PRF-19500/520C |
| 62040-213 | JANTX Screened, Yellow LED, Panel Mount | MIL-PRF-19500/520C |
| 62040-301 | Commercial, Green LED, TO-46 | 1N6611 |
| 62040-302 | JAN Screened, Green LED, TO-46 | MIL-PRF-19500/521C |
| 62040-303 | JANTX Screened, Green LED, TO-46 | MIL-PRF-19500/521C |
| 62040-311 | Commercial, Green LED, Panel Mount | |
| 62040-312 | JAN Screened, Green LED, Panel Mount | MIL-PRF-19500/521C |
| 62040-313 | JANTX Screened, Green LED, Panel Mount | MIL-PRF-19500/521C |