

**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.

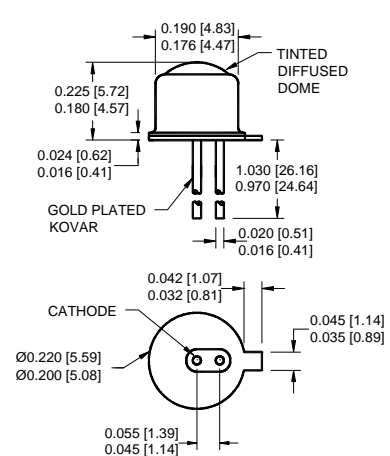
**ABSOLUTE MAXIMUM RATINGS**

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

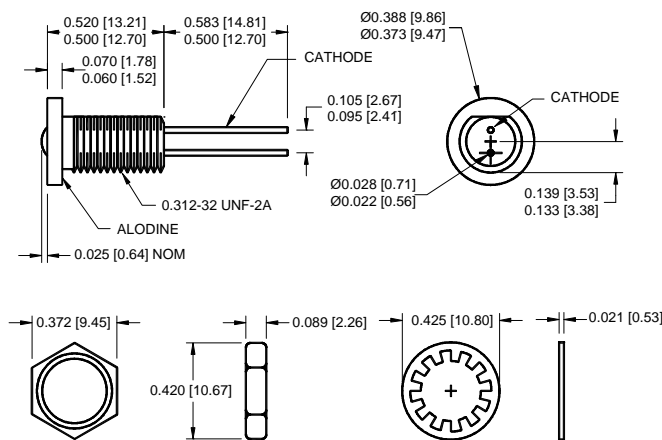
Notes:

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.

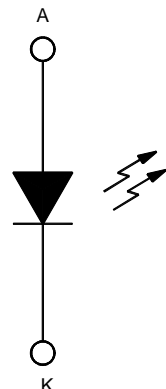
**Indicator Dimensions**



**Panel Mount Dimensions**



**Schematic Diagram**



ALL DIMENSIONS ARE IN INCHES [MILLIMETERS]

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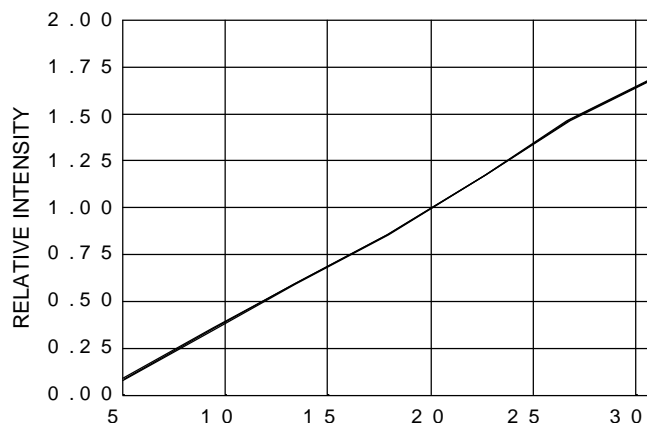
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**ELECTRICAL CHARACTERISTICS  $T_A=25^{\circ}\text{C}$**

PART NUMBER	COLOR	TEST CONDITION	PARAMETER LIMITS			
			$I_F$ mA	PEAK $\lambda$ 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**

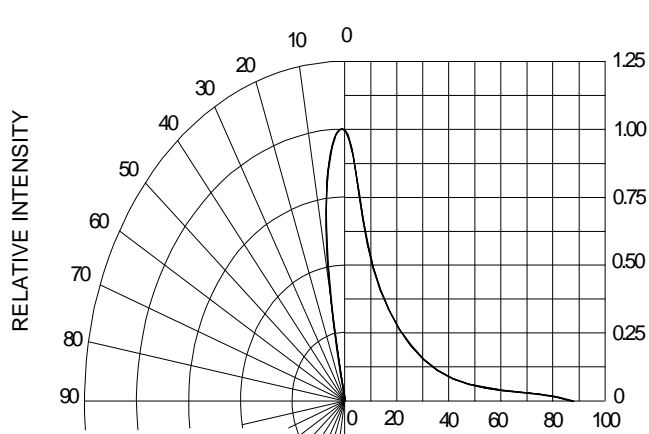
**vs**  
**Forward Current**  
 (Normalized at 20 mA)



$I_F$  - 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