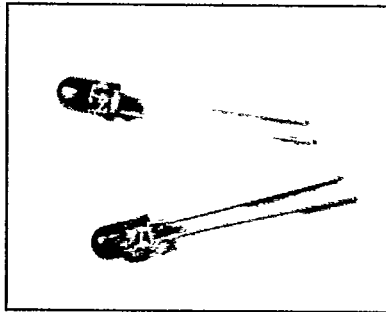


**SIEMENS**

**HIGH EFFICIENCY RED LS5469-EO/-FO**  
**YELLOW LY5469-EO/-FO**  
**GREEN LG5469-EO/-FO**  
**LOW CURRENT T1¾ LED LAMP**

**FEATURES**

- Low Power Requirement
- 50° Viewing Angle
- Diffused Lens
- 1" Lead Length
- I/C Compatible

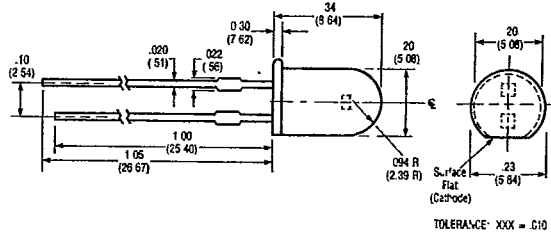
**DESCRIPTION**

The 5469 series are low current LED lamps that have been designed to optimize light output at very low currents. These parts are ideally suited for applications where power is at a premium, such as portable equipment.

Both the HER and yellow lamps utilize GaAsP on GaP semiconductor materials while the green lamps utilize GaP on GaP.

See graph numbers 2K, 3F and 4C (HER), 3G and 4D (yellow), 3H and 4E (green), 6F on pages 4-27-4-34.

Package Dimensions in Inches (mm)

**T-41-21**

TOLERANCE: XXX = .010

**Maximum Ratings**

|                                                                       |               |
|-----------------------------------------------------------------------|---------------|
| Reverse Voltage ( $V_R$ )                                             | 5 V           |
| Forward Current ( $I_F$ )                                             | 7.5 mA        |
| Surge Current ( $I_{FS}$ )                                            | 100 mA        |
| Storage Temperature Range ( $T_{STG}$ )                               | -55 to +100°C |
| Junction Temperature ( $T_J$ )                                        | 100°C         |
| Total Power Dissipation ( $T_{amb} = 25^\circ\text{C}$ ) ( $P_{TD}$ ) | 20 mW         |
| Thermal Resistance Junction-on-air ( $R_{thJA}$ )                     | .500 K/W      |

**Electrical/Optical Characteristics ( $T_{amb} = 25^\circ\text{C}$ )**

|                         | Min  | Typ | Max | Unit          | Test Condition        |
|-------------------------|------|-----|-----|---------------|-----------------------|
| Luminous Intensity      |      |     |     |               |                       |
| HER, Yellow, Grn (-EO)  | 0.63 | 2   |     | mcd           | $I_F = 2 \text{ mA}$  |
| HER, Yellow, Grn (-FO)  | 1    | 2   |     | mcd           | $I_F = 2 \text{ mA}$  |
| Peak Wavelength         |      |     |     |               |                       |
| HER                     |      | 635 |     | nm            | $I_F = 2 \text{ mA}$  |
| Yellow                  |      | 590 |     | nm            | $I_F = 2 \text{ mA}$  |
| Green                   |      | 565 |     | nm            | $I_F = 2 \text{ mA}$  |
| Dominant Wavelength     |      |     |     |               |                       |
| HER                     |      | 625 |     | nm            | $I_F = 2 \text{ mA}$  |
| Yellow                  |      | 592 |     | nm            | $I_F = 2 \text{ mA}$  |
| Green                   |      | 564 |     | nm            | $I_F = 2 \text{ mA}$  |
| Half Angle              |      | 50  |     | Deg.          |                       |
| Forward Voltage $V_F$   |      |     |     |               |                       |
| HER                     |      | 1.8 | 2.5 | V             | $I_F = 2 \text{ mA}$  |
| Yellow, Green           |      | 1.9 | 2.7 | V             | $I_F = 2 \text{ mA}$  |
| Reverse Current $I_R$   |      | 010 | 10  | $\mu\text{A}$ | $V_R = 5 \text{ V}$   |
| Response Time           |      |     |     |               |                       |
| (Rise Time) $t_r$       |      |     |     |               |                       |
| $I_F$ from 10% to 90%   |      |     |     |               |                       |
| HER, Yellow             |      | 200 |     | ns            | $I_F = 25 \text{ mA}$ |
| Green                   |      | 450 |     | ns            | $I_F = 25 \text{ mA}$ |
| (Fall Time) $t_f$       |      |     |     |               |                       |
| $I_F$ from 90% to 10%   |      |     |     |               |                       |
| HER, Yellow             |      | 150 |     | ns            | $I_F = 25 \text{ mA}$ |
| Green                   |      | 200 |     | ns            | $I_F = 25 \text{ mA}$ |
| Capacitance $C_0$       |      |     |     |               |                       |
| HER, Yellow             |      | 3   |     | pF            | $V_R = 0 \text{ V}$   |
| Green                   |      | 12  |     | pF            | $V_R = 0 \text{ V}$   |
| Spectral Line Halfwidth |      |     |     |               |                       |
| HER                     |      | 45  |     | nm            | $I_F = 2 \text{ mA}$  |
| Yellow                  |      | 50  |     | nm            | $I_F = 2 \text{ mA}$  |
| Green                   |      | 25  |     | nm            | $I_F = 2 \text{ mA}$  |