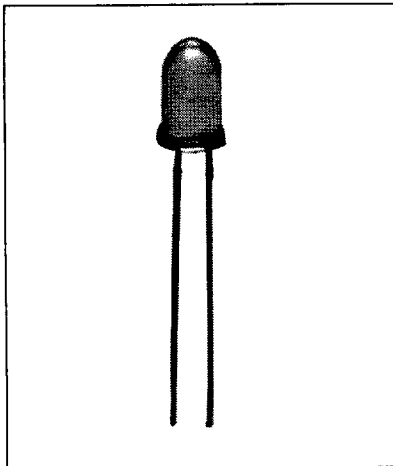


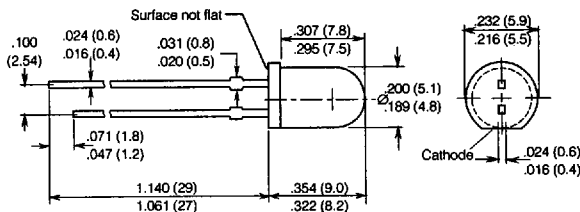
# SIEMENS

**SUPER-RED LS 5469**  
**YELLOW LY 5469**  
**GREEN LG 5469**

**Low Current T1<sup>3/4</sup> (5 mm) LED Lamp**



Package Dimensions in Inches (mm)



## FEATURES

- Low Power Requirement
- 50° Viewing Angle
- Diffused Lens
- 1" Lead Length
- IC 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 super-red and yellow lamps utilize GaAsP on GaP semiconductor materials while the green lamps utilize GaP on GaP.

## Maximum Ratings

Operating Temperature Range ( $T_{OP}$ ).....-55°C to +100°C  
 Storage Temperature Range ( $T_{STG}$ ).....-55°C to +100°C  
 Junction Temperature ( $T_J$ ) ..... 100°C  
 Reverse Voltage ( $V_R$ )..... 5 V  
 Forward Current ( $I_F$ )..... 7.5 mA  
 Surge Current ( $I_{FS}$ ,  $t=10 \mu s/D \leq 0.005$ )..... 150 mA  
 Total Power Dissipation ( $P_{TOT}$ ,  $T_A=25^\circ C$ )..... 20 mW  
 Thermal Resistance Junction to Air ( $R_{THJA}$ )..... 750 K/W  
 Note: Soldered on PC board: pad size  $\geq 16 \text{ mm}^2$

**Characteristics ( $T_A=25^\circ C$ )** All values typical unless otherwise noted

| Parameter                                                        | Sym              | LS 5469            | LY 5469            | LG 5469            | Unit    |
|------------------------------------------------------------------|------------------|--------------------|--------------------|--------------------|---------|
|                                                                  |                  | Super-Red          | Yellow             | Green              |         |
| Peak Wavelength ( $I_F=2 \text{ mA}$ )                           | $\lambda_{PEAK}$ | 635                | 586                | 565                | nm      |
| Dominant Wavelength ( $I_F=2 \text{ mA}$ )                       | $\lambda_{DOM}$  | 628                | 590                | 570                | nm      |
| Spectral Bandwidth<br>(50% $I_{RELMAX}$ , $I_F=7.5 \text{ mA}$ ) | $\Delta\lambda$  | 45                 | 45                 | 25                 | nm      |
| Viewing Angle                                                    | $2\phi$          | 50                 | 50                 | 50                 | Deg.    |
| Forward Voltage ( $I_F=2 \text{ mA}$ )                           | $V_F$            | 1.8 ( $\leq 2.5$ ) | 2.0 ( $\leq 2.7$ ) | 1.9 ( $\leq 2.6$ ) | V       |
| Reverse Current ( $V_R=5 \text{ V}$ )                            | $I_R$            | .01 ( $\leq 10$ )  | .01 ( $\leq 10$ )  | .01 ( $\leq 10$ )  | $\mu A$ |
| Capacitance<br>( $V_R=0 \text{ V}$ , $f=1 \text{ MHz}$ )         | $C_0$            | 3                  | 3                  | 15                 | pF      |
| Response Time<br>( $I_F=25 \text{ mA}$ , $t=1 \mu s$ )           |                  |                    |                    |                    |         |
| Rise Time $I_V$ , 10% to 90%                                     | $t_R$            | 200                | 200                | 450                | ns      |
| Fall Time $I_V$ , 90% to 10%                                     | $t_F$            | 150                | 150                | 200                | ns      |
| Luminous Intensity                                               |                  |                    |                    |                    |         |
| Part Number                                                      | Min.             | Typ.               | Unit               | Test Condition     |         |
| LS/LY/LG 5469-EH                                                 | 0.63             | 5                  | mcd                | $I_F=2 \text{ mA}$ |         |
| LS/LY/LG 5469-FH                                                 | 1                | 5                  | mcd                | $I_F=2 \text{ mA}$ |         |

\* Luminous intensity ratio of one packaging unit  $I_{VMAX}/I_{VMIN} \leq 2$ .

See graph numbers 1, 2D, 3B, 4D, 5C, 6C, 7A, 8A, 9B, 10A in the back of this section.