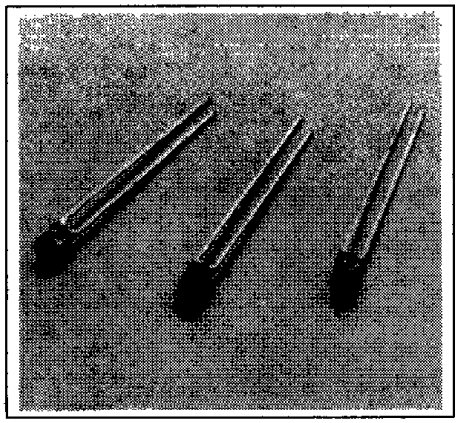
T-41-21

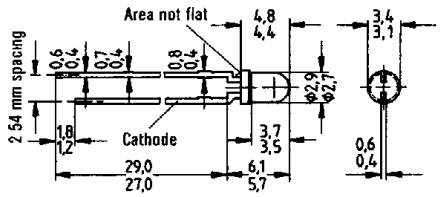
# SIEMENS

# RED LR 3360
# SUPER-RED LS 3360
# YELLOW LY 3360
# GREEN LG 3360

## T1 (3 mm) LED LAMP



Package Dimensions mm




Approx weight 0,15 g

### FEATURES

- **High Light Output**
- **Diffused Lens**
- **Wide Viewing Angle 70°**
- **With Standoffs**
- **T1 (3 mm) Package Size**
- **1" Lead Length**
- **I/C Compatible**

### DESCRIPTION

The LR 3360 series is a standard red gallium arsenide phosphide (GaAsP) LED lamp. The LS 3360 super-red and LY 3360 yellow are premium high efficiency light emitting diode lamps fabricated with TSN (transparent substrate nitrogen) technology. The LG 3360 green is a gallium phosphide (GaP) lamp. All have a diffused plastic lens which emits a full flooded intense light.

### Maximum Ratings

Reverse Voltage ($V_R$) ..... 5 V
Forward Current ($I_F$) ..... 45 mA
Surge Current ($t \leq 10\ \mu s$) ($I_{FS}$) ..... 1 A
Storage Temperature Range ($T_{STG}$) ..... -55°C to +100°C
Junction Temperature ($T_J$) ..... 100°C
Total Power Dissipation ($P_{TOT}$) $T_A$=25°C ..... 150 mW
Thermal Resistance Junction to Air ($R_{th\text{-}UA}$) ..... 500 K/W

### Characteristics ($T_A$=25°C)

| Parameter | Symbol | LR 3360 Red | LS 3360 Super-Red | LY 3360 Yellow | LG 3360 Green | Unit |
|---|---|---|---|---|---|---|
| Wavelength at Peak Emission | $\lambda_{PEAK}$ | 660 | 635 | 586 | 565 | nm |
| Dominant Wavelength | $\lambda_{DOM}$ | 645 | 628 | 590 | 567 | nm |
| Viewing Angle (Limits for 50% of Luminous Intensity $I_V$) | $\varphi$ | 70 | 70 | 70 | 70 | Deg. |
| Forward Voltage ($I_F$=10 mA) | $V_F$ | 1.6 (≤2.0) | 2 0 (≤2.6) | 2.0 (≤2.6) | 2 0 (≤2.6) | V |
| Reverse Current ($V_R$=5 V) | $I_R$ | 0.01 (≤10) | 0 01 (≤10) | 0.01 (≤10) | 0 01 (≤10) | µA |
| Capacitance ($V_R$=0 V, f = 1 MHz) | $C_0$ | 25 | 12 | 10 | 15 | pF |
| Rise Time | $t_R$ | 120 | 300 | 300 | 450 | ns |
| Fall Time | $t_F$ | 90 | 150 | 150 | 200 | ns |

Luminous Intensity (mcd)

| *Part Number* | *Min.* | *Max.* | *Test Condition* | *Part Number* | *Min.* | *Max.* | *Test Condition* |
|---|---|---|---|---|---|---|---|
| LR 3360-DG | 0.4 | 3 2 | 10 mA | LY 3360-H | 2.5 | 5 0 | 10 mA |
| LR 3360-F | 1 | 2 | 10 mA | LY 3360-HL | 2 5 | 20 | 10 mA |
| LR 3360-FJ | 1 | 8 | 10 mA | LY 3360-J | 4 | 8 | 10 mA |
| LR 3360-G | 1.6 | 3.2 | 10 mA | LY 3360-JM | 4 | 32 | 10 mA |
| LS 3360-HL | 2.5 | 20 | 10 mA | LY 3360-K | 6 3 | 12 5 | 10 mA |
| LS 3360-J | 4 | 8 | 10 mA | LG 3360-GK | 1 6 | 12.5 | 10 mA |
| LS 3360-K | 6.3 | 12.5 | 10 mA | LG 3360-H | 2.5 | 5 | 10 mA |
| LS 3360-KN | 6.3 | 50 | 10 mA | LG 3360-J | 4 | 8 | 10 mA |
| LS 3360-L | 10 | 20 | 10 mA | LG 3360-JM | 4 | 32 | 10 mA |
| | | | | LG 3360-K | 6 3 | 12 5 | 10 mA |

See graph numbers 1, 2K (red), 2L (super-red & yellow), 2M (green), 3A, 5A, 6A, 7A, 8, 9, 10 on pages 42 – 48.