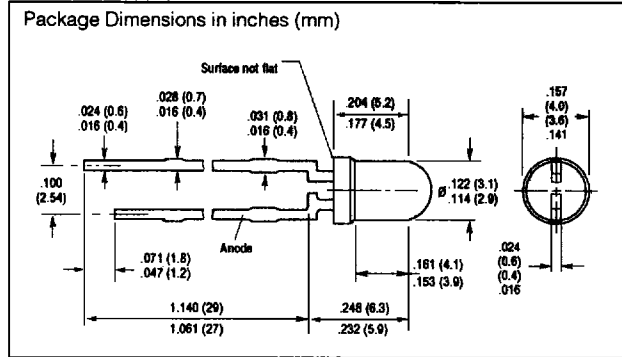
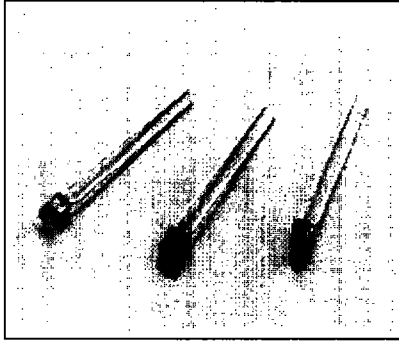


SIEMENS

SUPER-RED/ GREEN LSG 3331-JO SUPER-RED/ GREEN LSG 3351-HO

T1 (3mm) Two Color, Red and Green LED Lamp



FEATURES

- High Light Output
- Lens
 - LSG 3331: Colorless Clear
 - LSG 3351: Colorless Diffused
- Viewing Angle 150°
- T1 (3mm) Package Size
- 1" Lead Length
- I/C Compatible

DESCRIPTION

The LSG 3331 and LSG 3351 are both super-red/green, two color LED lamps with their chips in an anti-parallel arrangement. By reversing the current the lamp can be switched from super-red to green. With the appropriate circuitry, it is also possible to produce orange and yellow.

Maximum Ratings

Operating Temperature (T_{OP})	.....	-55°C to +100°C
Storage Temperature (T_{STG})	.....	-55°C to +100°C
Junction Temperature (T_J)	.....	100°C
Forward Current (I_F)	.....	40 mA
Surge Current (I_{FS} , $t=10 \mu S$)	.....	0.5 A
Power Dissipation (P_{TOT} , $T_A=25^\circ C$)	.....	140 mW
Thermal Resistance Junction-to-Air (R_{THJA})	.....	400 K/W

Note 1. With simultaneous operation of both diodes of two-color LEDs the sum of the currents as well as the power dissipation must not exceed the specified limits.

Characteristics ($T_A=25^\circ C$)

Parameter	Symbol	Red	Green	Unit
Peak Wavelength (typ.) ($I_F=20 \text{ mA}$)	λ_{PEAK}	635	565	nm
Dominant Wavelength ($I_F=20 \text{ mA}$)	λ_{DOM}	628	570	nm
Spectral Bandwidth (typ.) (50% I_{RELMAX} , $I_F=20 \text{ mA}$)	$\Delta\lambda$	45	25	nm
Viewing Angle, 50% I_V				
LSG 3331	2 ϕ	40	40	Deg.
LSG 3351	2 ϕ	50	50	Deg.
Forward Voltage ($I_F=10 \text{ mA}$)	V_F	2.0 (≤ 2.6)	2.0 (≤ 2.6)	V
Capacitance ($V_R=0 \text{ V}$, $f=1 \text{ MHz}$)	C_0	27	27	pF
Rise Time	t_R	300	450	ns
Fall Time	t_F	150	200	ns
Luminous Intensity (mcd)				Test
Part Number	Min.	Typ.	Unit	Condition
LSG 3331-JO	4	18	mcd	10 mA
LSG 3351-HO	2.5	-	mcd	10 mA

Note

1. Luminous intensity factor (I_V) in one packaging unit $I_{VMAX}/I_{VMIN} \leq 3$.
2. Luminous intensity factor (I_V) in one LED $I_{VMAX}/I_{VMIN} \leq 3.0$.
3. The brightness of the darker chip in one package determines the brightness group of the LED.

See graph numbers 1, 2C (LSG 3331), 2B (LSG 3351), 3A, 4A, 5A, 6A, 7A, 8A, 9A, 10A in the back of this section.

LED Lamps