

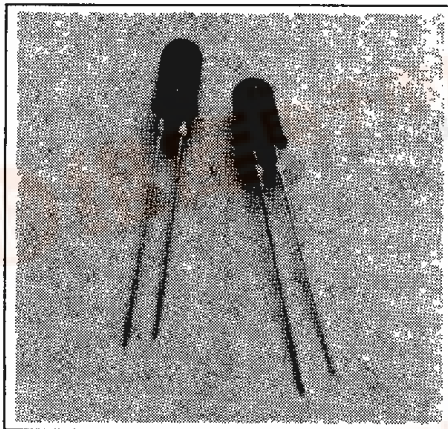
SIEMENS

SUPER-RED LS 5180^{T-41-21}

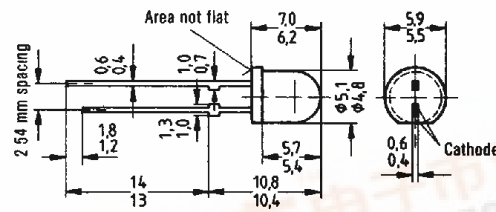
YELLOW LY 5180

GREEN LG 5180

T1³/₄ (5 mm) LED LAMP



Package Dimensions mm



Approx weight 0.25 g

FEATURES

- Diffused Lens
- Wide Viewing Angle 140°
- With Standoffs
- T1³/₄ (5 mm) Package Size
- 1" Lead Length
- I/C Compatible

DESCRIPTION

The LS 5180 super-red and LY 5180 yellow are premium high efficiency light emitting diode lamps fabricated with TSN (transparent substrate nitrogen) technology. The LG 5180 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 ($t = 10 \mu s$) (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}) $T_A = 25^\circ C$	150 mW
Thermal Resistance Junction to Air (R_{THA})	500 K/W

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

Parameter	Symbol	LS 5180 Super-Red	LY 5180 Yellow	LG 5180 Green	Unit
Wavelength at Peak					
Emission	λ_{PEAK}	635	586	565	nm
Dominant Wavelength	λ_{DOM}	628	590	567	nm
Viewing Angle (Limits for 50% of Luminous Intensity I_ϕ)	ϕ	140	140	140	Deg
Forward Voltage ($I_F = 10 \text{ mA}$)	V_F	2.0 (≤ 2.6)	2.0 (≤ 2.6)	2.0 (≤ 2.6)	V
Reverse Current ($V_R = 5 \text{ V}$)	I_R	0.01 (≤ 10)	0.01 (≤ 10)	0.01 (≤ 10)	μA
Capacitance ($V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$)	C_ϕ	12	10	15	pF
Rise Time	t_R	300	300	450	ns
Fall Time	t_F	150	150	200	ns

Luminous Intensity (mcd)

Part Number	Min.	Max.	Test Condition	Part Number	Min.	Max.	Test Condition
LS 5180-FJ	1	8	10 mA	LY 5180-GK	1.6	12.5	10 mA
LS 5180-G	1.6	3.2	10 mA	LY 5180-H	2.5	5	10 mA
LS 5180-H	2.5	5	10 mA	LG 5180-FJ	1	8	10 mA
LS 5180-HL	2.5	20	10 mA	LG 5180-G	1.6	3.2	10 mA
LS 5180-J	4	8	10 mA	LG 5180-H	2.5	5	10 mA
LY 5180-EH	0.63	5	10 mA	LG 5180-HL	2.5	20	10 mA
LY 5180-F	1	2	10 mA	LG 5180-J	4	8	10 mA
LY 5180-G	1.6	3.2	10 mA				

See graph numbers 1, 2E, 3A, 5A, 6A, 7A, 8, 9, 10 on pages 42-48