



**SIEMENS**

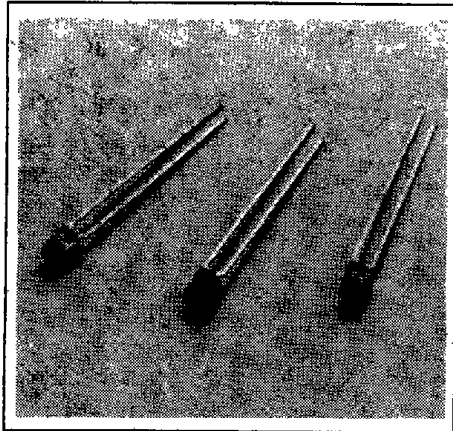
F41-21

**SUPER-RED LS 3180**

**YELLOW LY 3180**

**GREEN LG 3180**

**T1 (3 mm) WIDE ANGLE LED LAMP**



**FEATURES**

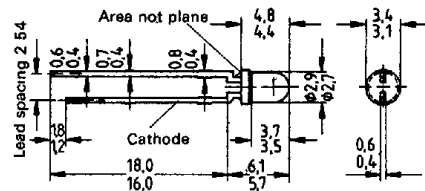
- **Colors:** Super-Red, Yellow, Green
- **Lens:** Red Diffused, Yellow Diffused, Green Diffused
- **Low Power Dissipation**
- **Low Self-Heating**
- **Rigid Construction**
- **Suitable for Multiplex Operation**
- **Wide Angle 100°**
- **Cathode: Shorter Solder Tab**

**DESCRIPTION**

The LS/LY/LG 3180 are T1 (3 mm) wide angle LED lamps. The 3 mm plastic package has colored diffused lenses to match the emission color, 2.54 mm lead spacing, and solder tabs (17 mm).

Applications include switching and ON/OFF displays, and back lighting.

Package Dimensions mm



**Maximum Ratings**

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

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

Parameter	Symbol	LS 3180 Super-Red	LY 3180 Yellow	LG 3180 Green	Unit
Wavelength at Peak					
Emission ( $I_F=20$ mA)	$\lambda_{PEAK}$	635	586	565	nm
Dominant Wavelength	$\lambda_{DOM}$	628	590	567	nm
Viewing Angle at 50% $I_V$	$\phi$	100	100	100	Deg.
Forward Voltage ( $I_F=10$ mA)	$V_F$	2.0 ( $\leq 6$ )	2.0 ( $\leq 6$ )	2.0 ( $\leq 6$ )	V
Reverse Current ( $V_R=5$ V)	$I_R$	0.01 ( $\leq 10$ )	0.01 ( $\leq 10$ )	0.01 ( $\leq 10$ )	$\mu A$
Capacitance ( $V_R=0$ V, $f=1$ MHz)	$C_D$	12	10	45	pF
Switching Times ( $I_F=100$ mA, $t=10 \mu s$ )					
Rise Time of $I_V$ $I_V$ from 10% to 90%	$t_r$	300	300	1000	ns
Fall Time of $I_V$ $I_V$ from 90% to 10%	$t_f$	150	150	450	ns

Luminous Intensity  $I_V$  (mcd)\*

Part Number	Min.	Max.	Test Condition	Part Number	Min.	Max.	Test Condition
LS 3180-GK	1.6	12.5	10 mA	LY 3180-HL	2.5	20	10 mA
LS 3180-H	2.5	5	10 mA	LY 3180-J	4	8	10 mA
LS 3180-J	4	8	10 mA	LG 3180-EH	0.63	5	10 mA
LS 3180-JM	4	32	10 mA	LG 3180-G	1.6	3.2	10 mA
LS 3180-K	6.3	12.5	10 mA	LG 3180-GK	1.6	12.5	10 mA
LY 3180-FJ	1	8	10 mA	LG 3180-H	2.5	5	10 mA
LY 3180-G	1.6	3.2	10 mA				
LY 3180-H	2.5	5	10 mA				

\* Luminous intensity factor of  $I_V$  of one packaging unit  $\frac{I_{V MAX}}{I_{V MIN}} \leq 2$

See graph numbers 1, 2D, 3E, 4A, 5D, 6A, 7A, 8, 9, 10 on pages XX.