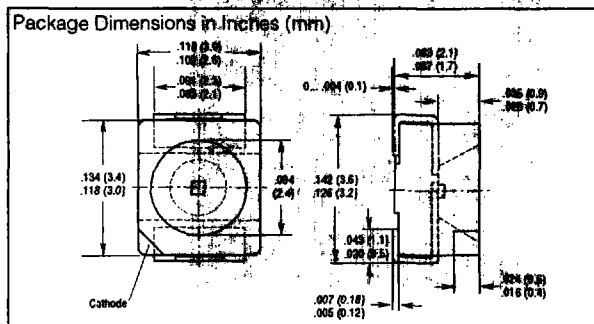


SIEMENS

SUPER-RED LS T670
ORANGE LO T670
YELLOW LY T670
GREEN LG T670
PURE GREEN LP T670

SMT-TOP-LED[®], Surface Mount LED Lamp



FEATURES

- PL-CC-2 Package
- Internal Reflector
- Colorless Clear Window
- Low Power Dissipation
- Wide Viewing Angle
- Compatible with Automatic Placement Equipment
- Suitable for Vapor-Phase Reflow, Infrared Reflow and Wave Solder Processes
- Ideal for Backlight and Light Pipe Applications

DESCRIPTION

The LX T670-HQ (SMT-TOP-LED for surface mount applications) is available in super-red, orange, yellow, green, and pure green. The package incorporates an internal reflector to optimize light coupling. This feature makes the SMT-TOP-LED ideal for light pipe applications.

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
Forward Current (I_F)	30 mA
Surge Current (I_{FS}) $t_p = 10 \mu s$	0.5 A
Reverse Voltage (V_R)	5 V
Power Dissipation (P_{TOT}) $T_A \leq 25^\circ C$	100 mW
Thermal Resistance, Junction to Ambient ⁽¹⁾	400 K/W

Note: Soldered on PC board: pad size $\geq 16 \text{ mm}^2$.

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

Parameter	Symbol	Super-				Pure	Unit
		Red	Orange	Yellow	Green	Green	
Peak Wavelength ($I_F = 10 \text{ mA}$)	λ_{PEAK}	635	610	586	565	557	nm
Dominant Wavelength ($I_F = 10 \text{ mA}$)	λ_{DOM}	628	605	590	570	560	nm
Spectral Bandwidth (50% $I_{REL,MAX}$; $I_F = 20 \text{ mA}$)	$\Delta\lambda$	45	45	45	25	22	nm
Viewing Angle 50% I_V	2 ϕ	120	120	120	120	120	Deg.
Forward Voltage ($I_F = 10 \text{ mA}$)	V_F	2.0	2.0	2.0	2.0	2.0	V
Reverse Current ($V_R = 5 \text{ V}$)	I_R	0.01	0.01	0.01	0.01	0.01	μA
Capacitance ($V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$)	C_0	12	8	10	15	15	pF
Response Time ($I_F = 100 \text{ mA}$, $t_p = 10 \mu s$, $R_L = 50 \Omega$)							
Rise Time/ I_V , 10%-90%	t_R	300	450	300	450	450	ns
Fall Time/ I_V , 90%-10%	t_F	150	200	150	200	200	ns

Luminous Intensity (mcd)
 $I_C = 10 \text{ mA}$

Part Number	Min.	Max.	Part Number	Min.	Typ.
LS/LO/LY/LG T670-HK	2.5	12.5	LP T670-GO	1.6	5.0
LS/LO/LY/LG T670-J	4.0	8.0			
LS/LO/LY/LG T670-K	6.3	12.5			
LS/LO/LY/LG T670-JL	4.0	20.0			

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

* Luminous intensity factor of I_V of one packaging unit $I_{V,MAX}/I_{V,MIN} \geq 2$