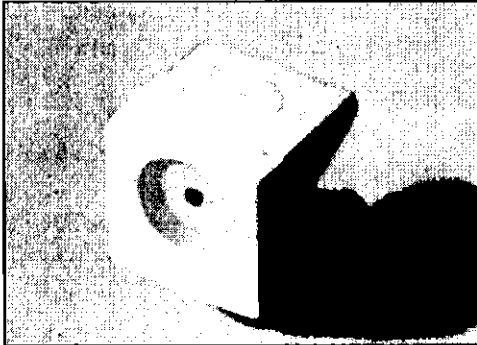


SIEMENS

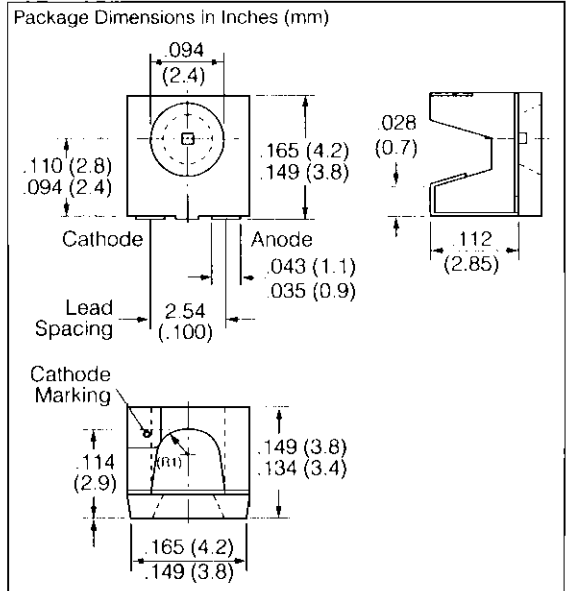
SUPER-RED LSA670
ORANGE LOA670
YELLOW LYA670
GREEN LGA670
PURE GREEN LPA670
SMT-SIDELED®
Preliminary Data



FEATURES

- White Package
- Internal Reflector
- Wide Viewing Angle
- Ideal for Backlighting, Optical Coupling into Light Pipes and Lenses
- Colorless Clear Window
- Available on Tape and Reel (12 mm Tape)
- Load Dump Resistant acc. to DIN 40839
- Low Power Dissipation
- Compatible with Automatic Placement Equipment
- Suitable for Vapor-Phase Reflow and Infrared Reflow Processes

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



DESCRIPTION

The LX A670 (SMT-SIDELED for surface mount applications) is available in super-red, orange, yellow, green, and pure green. The right angle package incorporates an internal reflector to optimize light coupling. This feature makes the SMT-SIDELED ideal for light pipe applications.

Maximum Ratings

Operating Temperature Range (T_{OP})	-55 to +100°C
Storage Temperature Range (T_{STG})	-55 to +100°C
Junction Temperature (T_J)	+100°C
Forward Current (I_F)	30 mA
Surge Current (I_{FM}) $t_p \leq 10 \mu s$ $D = 0.005$	0.5 A
Reverse Voltage (V_R)	5 V
Power Dissipation (P_{TOT})	100 mW
Thermal Resistance, Junction Air, Mounted on PC Board (pad size 16 mm ² (1))	
(R_{THJA})	400 K/W
Junction Solderpoint (R_{THJS})	300 K/W

Note: PC board G30/FR4

Characteristics ($T_A=25^{\circ}\text{C}$) All values typical unless otherwise noted

Parameter	Symbol	Values					Unit	
		Super Red	Orange	Yellow	Green	Pure 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_{RELMAX}) ($I_F=10\text{ mA}$)	$\Delta\lambda$	45	40	45	25	22	nm	
Viewing Angle, 50%, I_V	2φ	120	120	120	120	120	Deg.	
Forward Voltage ($I_F=10\text{ mA}$)	Typ.	V_F	2.0	2.0	2.0	2.0	V	
	Max		2.6	2.6	2.6	2.6		
Reverse Current ($V_R=5\text{ V}$)	Typ.	I_R	0.01	0.01	0.01	0.01	μA	
	Max		10	10	10	10		
Capacitance ($V_R=0\text{ V}$, $f=1\text{ MHz}$)	C_0	12	8	10	15	15	pF	
Switching times ($I_F=100\text{ mA}$) ($t_P=10\text{ }\mu\text{s}$, $R_L=50\text{ }\Omega$)	I_V 10%-90%	t_R	300	300	300	450	450	ns
	I_V 90%-10%	t_F	150	150	150	200	200	

Luminous Intensity Ratio in One Packaging Unit $I_{VMAX}/I_{VMIN}\geq 2.0$

Type	Light Emitting Color	Luminous Intensity $I_F=50\text{ mA}$, I_V (mcd)	
		Min.	Max.
LSA670-HK	Super-red, Yellow	2.5	12.5
LSA670-J		4	8
LSA670-K		6.3	12.5
LSA670-JL		4	20
LOA670-GJ	Orange	1.6	12.5
LOA670-H		2.5	5
LOA670-J		4	8
LOA670-JL		4	20
LYA670-HK	Yellow	2.5	12.5
LYA670-J		4	8
LYA670-K		6.3	12.5
LYA670-JL		4	20
LGA670-HK	Green	2.5	12.5
LGA670-J		4	8
LGA670-K		6.3	12.5
LGA670-JL		4	20
LPA670-FJ	Pure Green	1	8
LPA670-G		1.6	3.2
LPA670-H		2.5	5
LPA670-GK		1.6	12.5