



FEATURES

- Super-Red/Green and Super-Red/Pure Green LEDs in One Package
- Clear Colorless Lens
- High Luminous Flux
- Rugged Design
- Cathode Designations
Shorter Lead: Super-Red Cathode
Longer Lead: Green or Pure Green Cathode
- Applications—Backlighting Display Panels
 - Front Panels
 - Graphic Control and Display Boards
 - Sealed Keyboards
 - Large Scale Displays, Dot Matrix Displays

DESCRIPTION

The LSG K372 is a T1 (3mm) two leaded bicolor (super-red/green) Super ARGUS LED lamp with their chips in an anti-parallel arrangement. The LSP K372 is a super-red/pure green Super ARGUS LED.

ARGUS lamps are used with an additional custom built reflector (i.e., white plastic, such as Pocan B7375). The front end of the reflector is covered by a diffuser (see package dimensions). Uniform illuminations can be enhanced by the reflector design tailored to the LED and/or by using appropriate diffuser material.

Super ARGUS LEDs are designed to operate at 50 mA and provide as much as 10X luminous flux as standard ARGUS LEDs.

Note: Siemens does not supply the reflector or diffuser.

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)	.....	75 mA
Pulse Current (I_{FM}), $t \leq 10 \mu S$	.....	1 A
Power Dissipation (P_{TOT}), $T_A = 25^\circ C$	.....	300 mW
Thermal Resistance Junction to Air (R_{TJA}) ⁽¹⁾	250 K/W

Note 1. Mounted on PC board up to stand off pad size $\geq 16 \text{ mm}^2$.

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

Parameter	Symbol	Super-Red	Green	Pure Green	Unit
Peak Wavelength ($I_F = 20 \text{ mA}$)	λ_{PEAK}	635	565	557	nm
Dominant Wavelength ($I_F = 20 \text{ mA}$)	λ_{DOM}	628	570	560	nm
Spectral Bandwidth 50%, I_V ($I_F = 20 \text{ mA}$)	$\Delta\lambda$	45	25	22	nm
Forward Voltage ($I_F = 50 \text{ mA}$)	V_F	2.4	2.4	2.4	V
Capacitance ($V_R = 0 \text{ V}$, $f = 1 \text{ MHz}$)	C_0	55	55	80	pF
Switching Times ($I_F = 100 \text{ mA}$, $t_P = 10 \mu s$, $R_L = 50 \Omega$)					
Rise Time, 10% to 90%	t_R	300	450	450	ns
Fall Time, 90% to 10%	t_F	150	200	200	ns
Luminous Flux ⁽¹⁾ ($I_F = 50 \text{ mA}$)	Φ_V	160	160	100	mlm
		(≥ 100)	(≥ 100)	(≥ 40)	mlm

Notes:

1. Luminous flux ratio in one packaging unit $\Phi_{VMAX}/\Phi_{VMIN} \leq 2$.
2. Luminous flux ratio of one packaging unit $I_{VMAX}/I_{VMIN} \leq 2$.

See graph numbers 1, 2X, 3E, 3F, 4F, 5D (super-red), 5E (green), 6D, 7A, 8A, 9E, 10C in the back of this section.