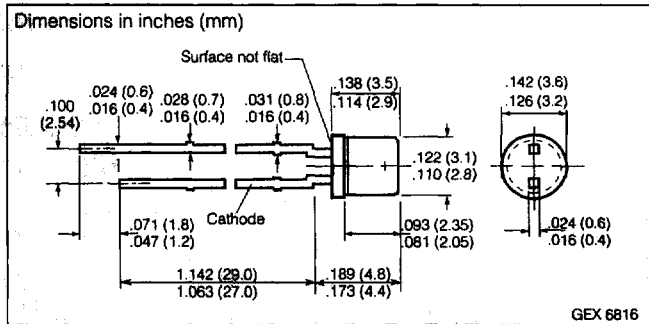


# SIEMENS

## SUPER-RED/PURE GREEN LSP P370 ORANGE/PURE GREEN LOP P370 3 mm (T1) Plane MULTILED® Lamp



### FEATURES

- Colorless, clear package
- For optical coupling into light pipes
- Use as optical indicator
- Antiparallel chips
- High signal efficiency possible by changing LED color
- Can change color from green to yellow and orange (resp. to super-red) with appropriate controlling by IC such as SDA 2231
- Solder leads with stand-off
- Available taped on reel
- Load dump resistant per DIN 40839

**Maximum Ratings** The stated maximum ratings refer to the specified chip, regardless of the other one's operating status.

Operating/Storage Temperature

Range ( $T_{OP}$   $T_{STG}$ ) ..... -55°C to +100°C

Junction Temperature ( $T_J$ ) ..... 100°C

Forward Current ( $I_F$ )

LS, LO ..... 40 mA

LP ..... 30 mA

Surge Current ( $I_{FM}$ )  $t < 10 \mu s$ ,  $D = 0.005$  ..... 0.5 A

Power Dissipation ( $P_{TOT}$ )  $T_A \leq 25^\circ C$

LS, LO ..... 140 mW

LP ..... 100 mW

Thermal Resistance,

Junction/Air ( $R_{THJA}$ ) ..... 400 K/W

**Characteristics**  $T_A = 25^\circ C$ , all values typical unless otherwise noted

Parameter	Sym.	LS	LO	LY	Unit	Condition
Peak Wavelength	$\lambda_{PEAK}$	635	610	557	nm	$I_F = 20 \text{ mA}$
Dominant Wavelength	$\lambda_{DOM}$	628	605	560		
Spectral Bandwidth, 50% $\Phi_V$	$\Delta\lambda$	45	40	22		
Forward Voltage	$V_F$	2.1 ( $\leq 2.6$ )			V	
Capacitance <sup>(4)</sup>	$C_O$	12	8	15	PF	$I_F = 20 \text{ mA}$
Switching Times, $t_v$	10% to 90%	$T_R$	300	450	ns	$I_F = 100 \text{ mA}$ $t_p = 10 \mu s$ $R_L = 50 \Omega$
	90% to 10%	$T_F$	150	200		

Part Number	Luminous Flux, $\Phi_V$ m/m	Part Number	Luminous Flux, $\Phi_V$ m/m	Condition
LSP P370-KN	6.3 to 50	LOP P370-KN	6.3 to 50	$I_F = 15 \text{ mA}$
LSP P370-M	16 to 32	LOP P370-M	16 to 32	
LSP P370-N	25 to 50	LOP P370-N	25 to 50	
LSP P370-P	40 to 80	LOP P370-MQ	16 to 125	
LSP P370-MQ	16 to 125			

### Notes

1. Luminous flux ratio of one packaging unit  $\Phi_{VMAX} / \Phi_{VMIN} \leq 2^{(3)}$ .
  2. Luminous flux ratio of one LED  $\Phi_{VMAX} / \Phi_{VMIN} \leq 4$ .
  3. In MULTILEDs, the brightness of the darker chip in one packaging unit determines the brightness group of the LED.
  4. The total capacitance results from the sum of the single capacitances.
- See graph numbers OHL01698, OHL02066, OHL02145, OHL02253, OHL01162, OHL01686, OHL02252, OHL01661, OHL02104, OHL02149, OHL02107 beginning on page 4-92.