Directly mountable, two-color LEDs (φ5.0 mm)

SPR-505 Series

The SPR-505 series are ϕ 5.0 mm, two-color LEDs which can be directly mounted on a printed circuit board. Red and green elements are built into a single package, and these LEDs are suitable for a wide range of uses.

Features

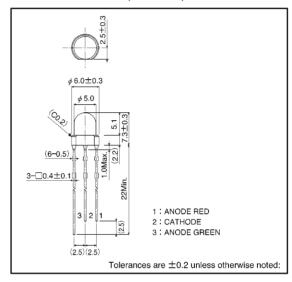
- 1) Two-color emission: red and green.
- 2) Epoxy resin package with a diameter of 5.0 mm.
- 3) Milky white lens.
- 4) High reliability.
- 5) Lead pitch of 2.5 mm.

Selection guide

Emitting color	Red / Green
Milky white	SPR-505MVW

Note: This product is only available on tape.

External dimensions (Units: mm)



■Absolute maximum ratings (Ta = 25°C)

Symbol	Red	Green	Unit		
Po	60	mW			
lF	20	25	mA		
lFP	60*	60*	mA		
VR	3	3	٧		
Topr	— 25~	Ĉ			
Tstg	-30~	c			
_		_			
	PD IF IFP VR	PD 60 IF 20 IFP 60* VR 3 Topr -25^ Tstg -30^ _ 260°C 5	PD 60 75 IF 20 25 IFP 60* 60* VR 3 3 Topr -25~+85		

^{*} Pulse width 1ms Duty 1 / 5

LED lamps SPR-505 Series

●Electrical and optical characteristics (Ta = 25°C)

Parameter	Symbol	Conditions	Red		Green			Unit	
			Min.	Тур.	Max.	Min.	Тур.	Max.	Offic
Forward voltage	VF	I=10mA	_	2.0	3.0	_	2.1	3.0	V
Reverse current	IR	V _R =3V	_	_	10	_	_	10	μΑ
Peak wavelength	λP	I=10mA	_	650	_	_	563	_	nm
Spectral line half width	Δλ	I=10mA	_	40	_	_	40	_	nm
Viewing angle	2θ 1/2	Diffused	_	40	_	_	40	_	deg
Luminous intensity	lv	I=10mA	2.2	6.3	_	3.6	10	_	mcd

•Luminous intensity vs. wavelength

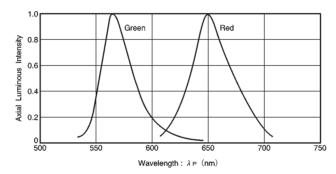


Fig. 1

Directional pattern

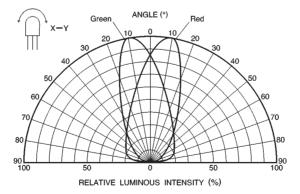


Fig. 2

LED lamps SPR-505 Series

Electrical characteristic curves (red, green)

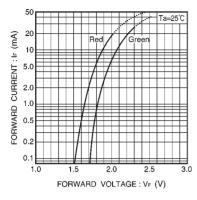


Fig. 3 Forward current vs. forward voltage

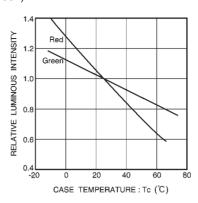


Fig. 4 Luminous intensity vs. case temperature

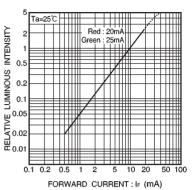


Fig. 5 Luminous intensity vs. forward current

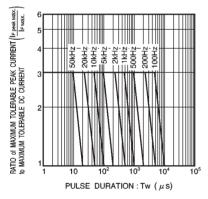


Fig. 6 Maximum tolerable peak current vs. pulse duration (red)

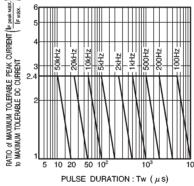


Fig. 7 Maximum tolerable peak current vs. pulse duration (green)

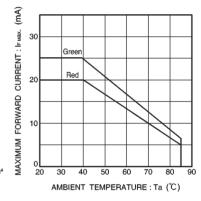


Fig. 8 Maximum forward current vs. ambient temperature