Reflecting LEDs (ϕ5 mm × 2.4 mm)

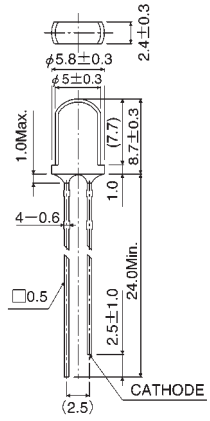
SLR-520 Series

The SLR-520 series are ϕ5 mm × 2.4 mm LEDs with a high luminous efficiency. Two colors and two lens types are available for a total of four types, and they are suitable for use in a wide variety of applications.

●Features

1) High luminosity.
2) Two colors : red and green.
3) Two lens types : Colored diffused and Colored transparent.
4) Slim package with a lens structure 5 mm in diameter.

●External dimensions (Units: mm)



Tolerances are ±0.2 unless otherwise noted:

●Selection guide

Emitting color / Lens	Red	Green
Colored diffused	SLR-520VR	SLR-520MG
Colored clear	SLR-520VC	SLR-520MC

●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Red	Green	Unit
		SLR-520VR SLR-520VC	SLR-520MG SLR-520MC	
Power dissipation	P_D	60	75	mW
Forward current	I_F	20	25	mA
Peak forward current	I_{FP}	60*	60*	mA
Reverse voltage	V_R	3	3	V
Operating temperature	Topr	−25～+85		℃
Storage temperature	Tstg	−30～+100		℃
Soldering temperature	—	260℃ 5 seconds maximum		—

* Pulse width 1ms Duty 1 / 5

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

Parameter	Symbol	Conditions	Red			Green			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Forward voltage	V_F	I_F=10mA	—	2.0	3.0	—	2.1	3.0	V
Reverse current	I_R	V_R=3V	—	—	10	—	—	10	μA
Peak wavelength	λ_P	I_F=10mA	—	650	—	—	563	—	nm
Spectral line half width	$\Delta\lambda$	I_F=10mA	—	40	—	—	40	—	nm
Viewing angle	$2\theta_{1/2}$	Diffused	—	40	—	—	40	—	deg
		Transparent	—	40	—	—	40	—	

●Luminous intensity vs. wavelength

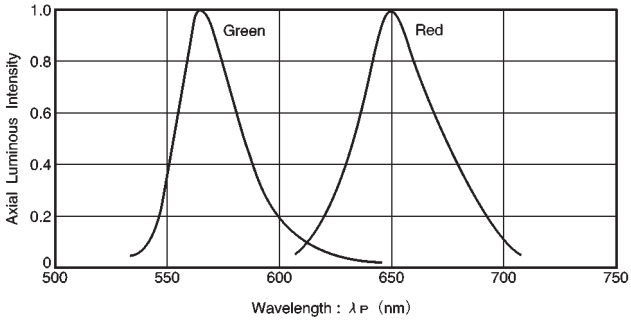


Fig. 1

●Luminous intensity

Color	λ_P	Type	Min.	Typ.	Max.	Unit
Red	650	SLR-520VR	3.6	10	—	mcd
		SLR-520VC	5.6	16	—	mcd
Green	563	SLR-520MG	3.6	10	—	mcd
		SLR-520MC	5.6	16	—	mcd

Note: Measured at I_F = 10 mA

●Directional pattern

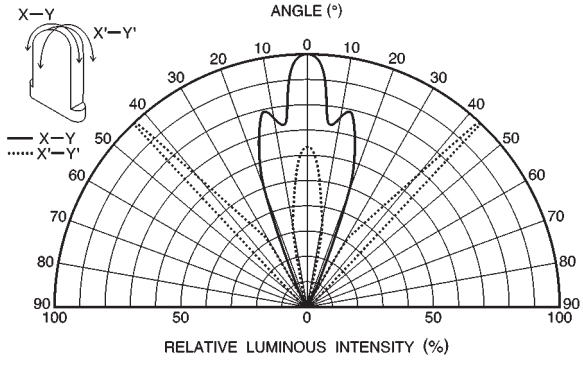


Fig. 2 Transparent type

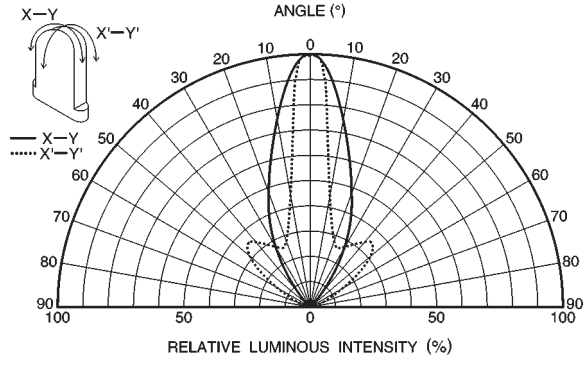


Fig. 3 Diffused type

●Electrical characteristic curves 1 (red)

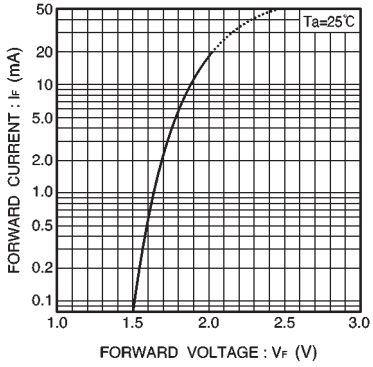


Fig. 4 Forward current vs. forward voltage

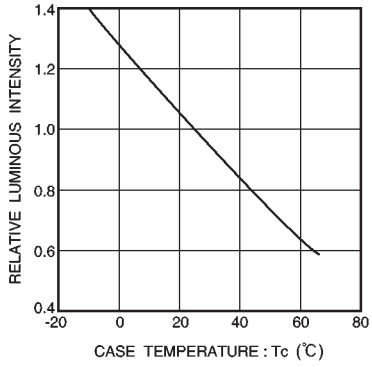


Fig. 5 Luminous intensity vs. case temperature

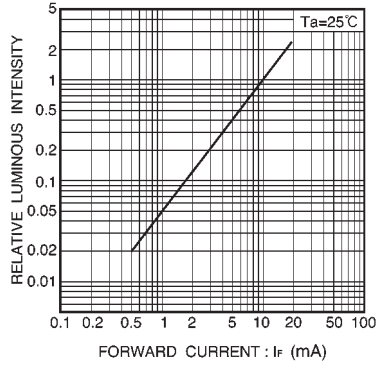


Fig. 6 Luminous intensity vs. forward current

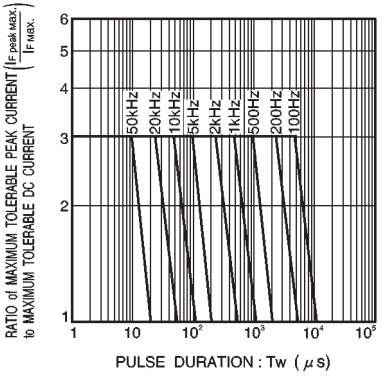


Fig. 7 Maximum tolerable peak current vs. pulse duration

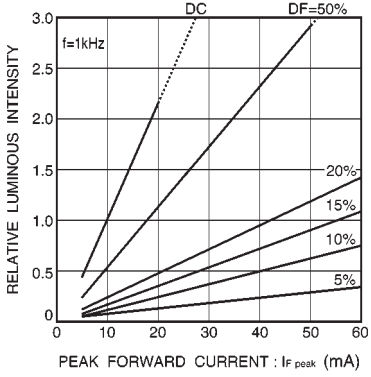


Fig. 8 Luminous intensity vs. peak forward current

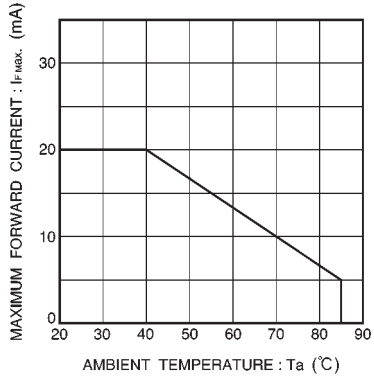


Fig. 9 Maximum forward current vs. ambient temperature

●Electrical characteristic curves 2 (green)

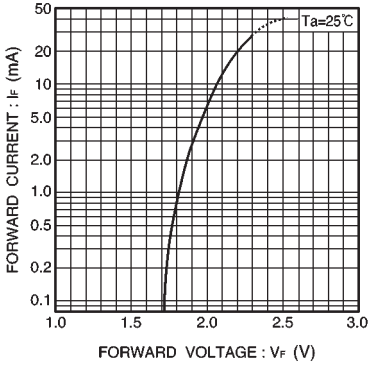


Fig. 10 Forward current vs. forward voltage

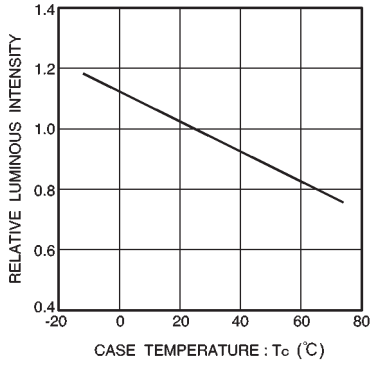


Fig. 11 Luminous intensity vs. case temperature

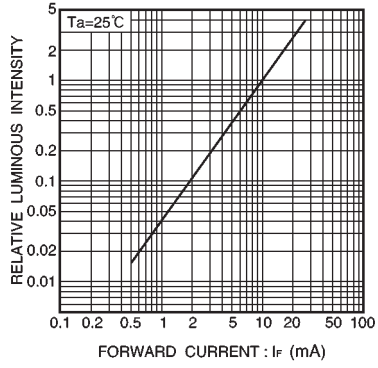


Fig. 12 Luminous intensity vs. forward current

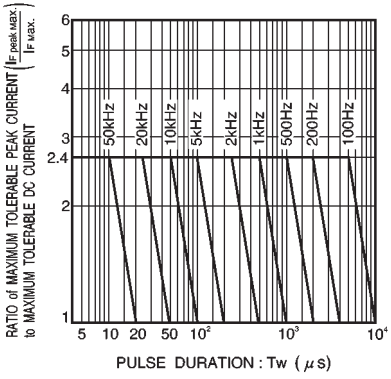


Fig. 13 Maximum tolerable peak current vs. pulse duration

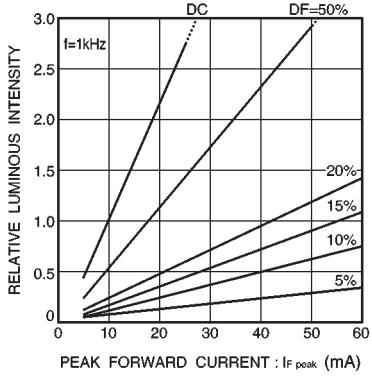


Fig. 14 Luminous intensity vs. peak forward current

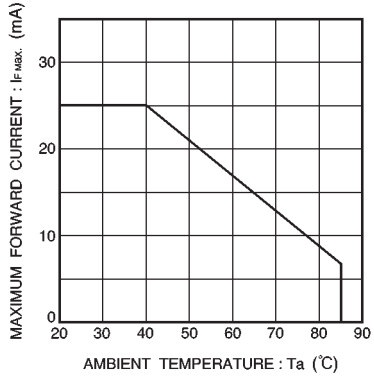


Fig. 15 Maximum forward current vs. ambient temperature