

High luminance, small LEDs ($\phi 3$, $\phi 3.1$ mm)

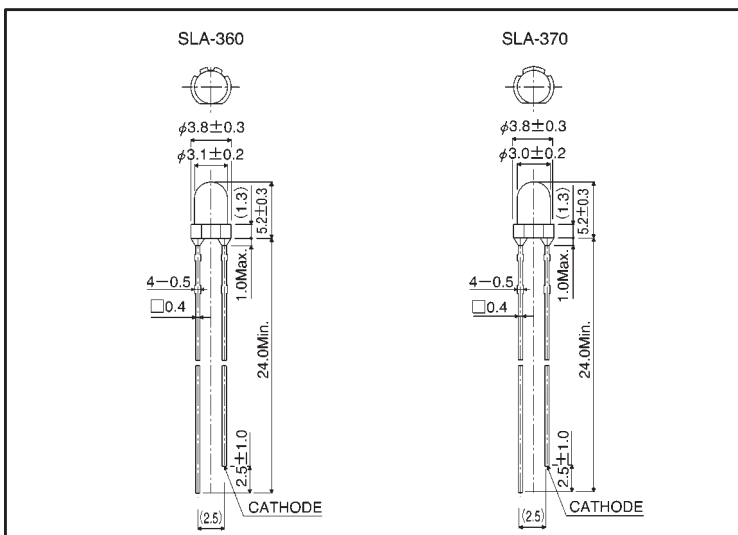
SLA-360 / SLA-370 Series

The SLA-360 and SLA-370 series are high luminance LEDs which give you a choice of narrow to wide viewing angles. Two red types and one green type are available in two packages for a total of six different types, and they are suitable for use in a wide variety of applications.

●Features

- 1) Very bright.
- 2) Ideal for outdoor and semi-outdoor applications.
- 3) High reliability.

●External dimensions (Units: mm)



●Selection guide

Chip Lens	Single-hetero GaAlAs (red)	Double-hetero GaAlAs (red)	GaP (green)
Medium viewing type	SLA-370LT	SLA-370JT	SLA-370MT
Wide viewing type	SLA-360LT	SLA-360JT	SLA-360MT

●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Red	Green	Unit
		SLR-360LT / JT SLR-370LT / JT	SLR-360MT SLA-370MT	
Power dissipation	P _o	100	75	mW
Forward current	I _F	50	25	mA
Peak forward current	I _{FP}	75	60	mA
Reverse voltage	V _R	4	4	V
Operating temperature	T _{opr}	-25 ~ +85		°C
Storage temperature	T _{stg}	-30 ~ +100		°C
Soldering temperature	—	260°C 5 seconds maximum		—

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

Parameter	Symbol	Conditions	Red			Green			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Forward voltage	V_F	$I_F=20\text{mA}$	—	1.75	2.5	—	2.3	3.0	V
Reverse current	I_R	$V_R=4\text{V}$	—	—	100	—	—	10	μA
Peak wavelength	λ_P	$I_F=20\text{mA}$	—	660	—	—	563	—	nm
Spectral line half width	$\Delta\lambda$	$I_F=20\text{mA}$	—	25	—	—	40	—	nm
Viewing angle	SLA-360	$2\theta_{1/2}$	—	40	—	—	40	—	deg
	SLA-370			25			25		

●Luminous intensity vs. wavelength

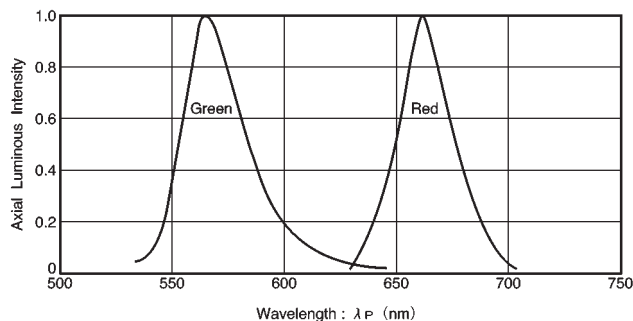


Fig.1

●Luminous intensity

Color	λ_P	Type	Min.	Typ.	Max.	Unit
Red	650	SLA-360JT	90	220	—	mcd
		SLA-360LT	20	47	—	mcd
		SLA-370JT	200	470	—	mcd
		SLA-370LT	42	100	—	mcd
Green	563	SLA-360MT	30	68	—	mcd
		SLA-370MT	42	100	—	mcd

Note: Measured at $I_F = 10\text{ mA}$

●Directional pattern

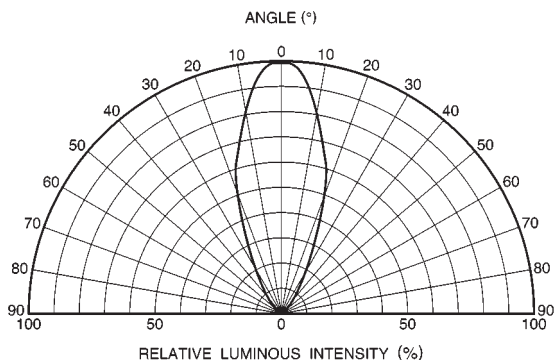


Fig. 2 SLA-360 Directional pattern

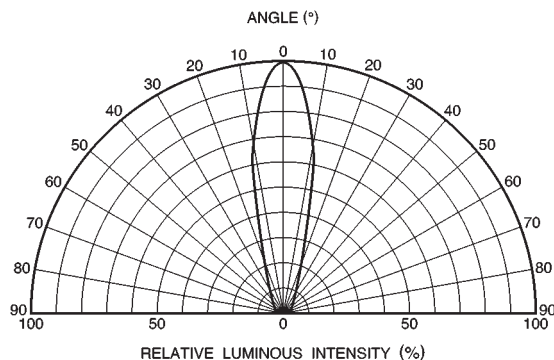


Fig. 3 SLA-370 Directional pattern

●Electrical characteristic curves 1 (red)

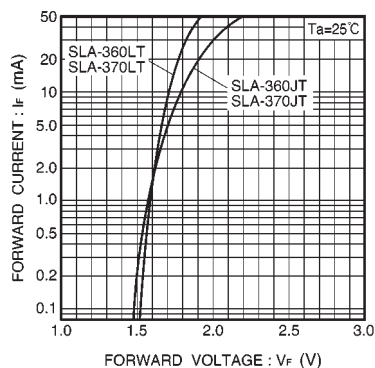


Fig. 4 Forward current vs. forward voltage

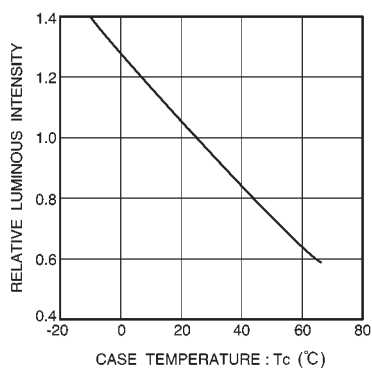


Fig. 5 Luminous intensity vs. case temperature

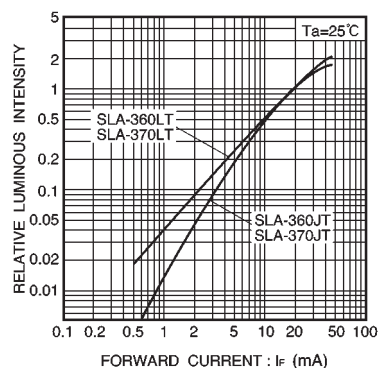


Fig. 6 Luminous intensity vs. forward current

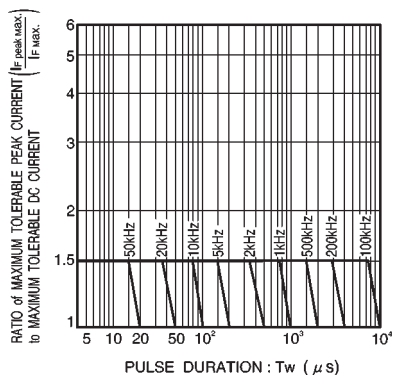


Fig. 7 Maximum tolerable peak current vs. pulse duration

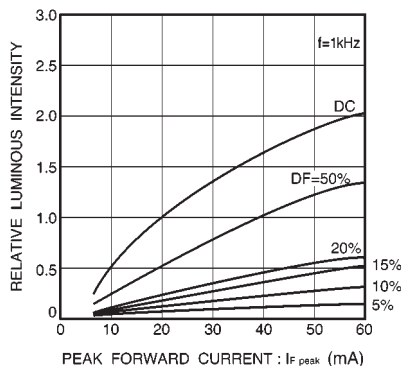


Fig. 8 Luminous intensity vs. peak forward current

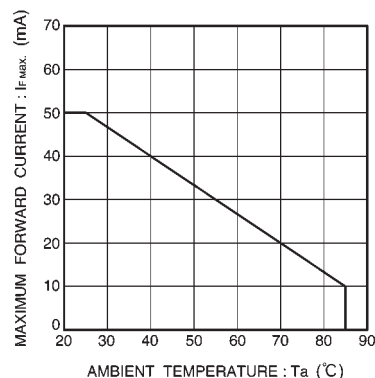


Fig. 9 Maximum forward current vs. ambient temperature

●Electrical characteristic curves 2 (green)

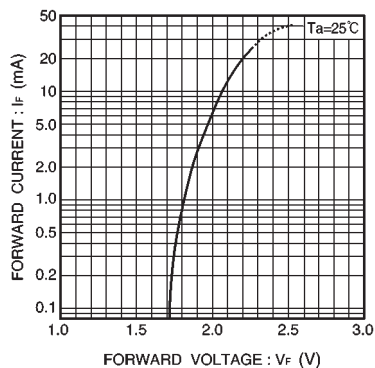


Fig. 10 Forward current vs. forward voltage

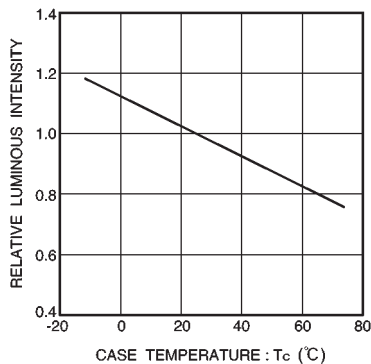


Fig. 11 Luminous intensity vs. case temperature

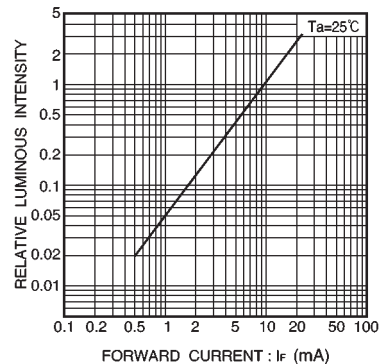


Fig. 12 Luminous intensity vs. forward current

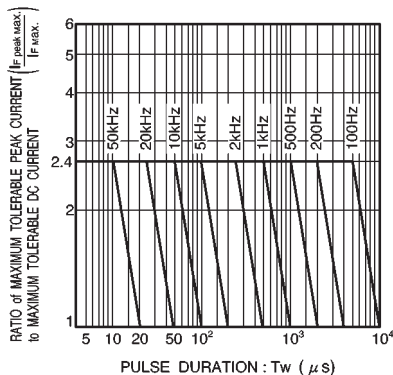


Fig. 13 Maximum tolerable peak current vs. pulse duration

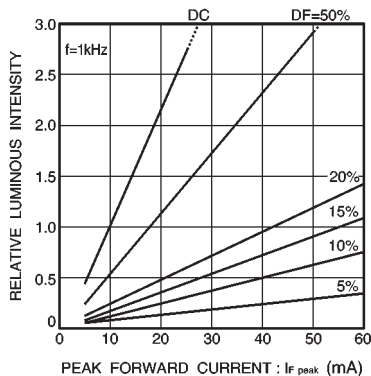


Fig. 14 Luminous intensity vs. peak forward current

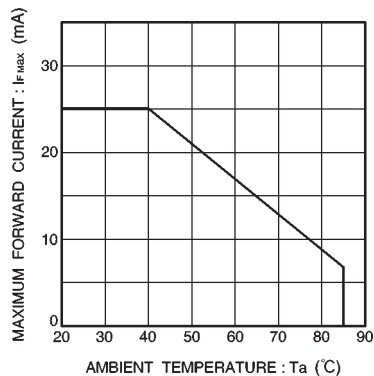


Fig. 15 Maximum forward current vs. ambient temperature