

●Absolute maximum ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Red	Red (High brightness)	Orange (High brightness)	Yellow (High brightness)	Green	Unit
		LA-301VB / VL	LA-301AB / AL	LA-301EB / EL	LA-301XB / XL	LA-301MB / ML	
Power dissipation	P_D	320	520	520	520	480	mW
Power dissipation	P_D / seg	40	65	65	65	60	mW
Forward current	I_F	15	25	25	25	20	mA
Peak forward current	I_{FP}	60 * ¹	50 * ²	50 * ²	50 * ²	60 * ¹	mA
Reverse voltage	V_R	5	5	5	5	5	V
Operating temperature	T_{opr}	-25 to +75					$^\circ\text{C}$
Storage temperature	T_{stg}	-30 to +85					$^\circ\text{C}$

*¹ Pulse width 1ms, duty 1 / 5

*² Pulse width 0.1ms, duty 1 / 10

●Electrical and optical characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Conditions	Red		Red (High brightness)		Orange (High brightness)		Yellow (High brightness)		Green		Unit
			Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.	
Forward voltage	V_F	$I_F = 10\text{mA}$	2.0	2.8	2.05*	2.6*	2.05*	2.6*	2.05*	2.6*	2.1	2.8	V
Reverse current	I_R	$V_R = 3\text{V}$	-	100	-	100	-	100	-	100	-	100	μA
Peak wavelength	λ_p	$I_F = 10\text{mA}$	650	-	626*	-	610*	-	589*	-	563	-	nm
Spectral line halfwidth	$\Delta\lambda$	$I_F = 10\text{mA}$	40	-	18*	-	17*	-	15*	-	40	-	nm

© Not designed for radiation resistance.

* Shows the number on the condition of $I_F = 20\text{mA}$.

●Luminous intensity

Parameter	λ_p	Type	Min.	Typ.	Max.	Unit
Red	650	LA-301VB	3.6	10	-	mcd
		LA-301VL				
Red (High brightness)	626	LA-301AB	36	90	-	mcd
		LA-301AL				
Orange (High brightness)	610	LA-301EB	36	90	-	mcd
		LA-301EL				
Yellow (High brightness)	589	LA-301XB	36	90	-	mcd
		LA-301XL				
Green	563	LA-301MB	3.6	10	-	mcd
		LA-301ML				

© Condition $I_F = 10\text{mA}$

●Electrical and optical characteristics curves

Fig.1 Forward Current vs. Forward Voltage

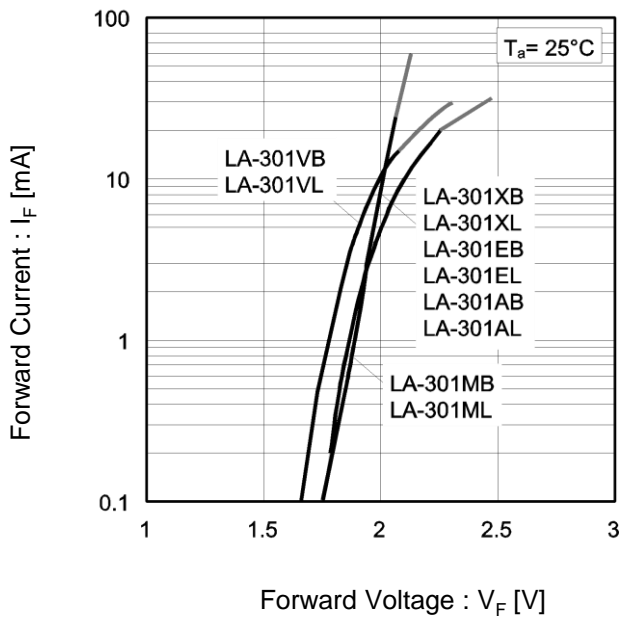


Fig.2 Relative Luminous Intensity vs. Forward Current

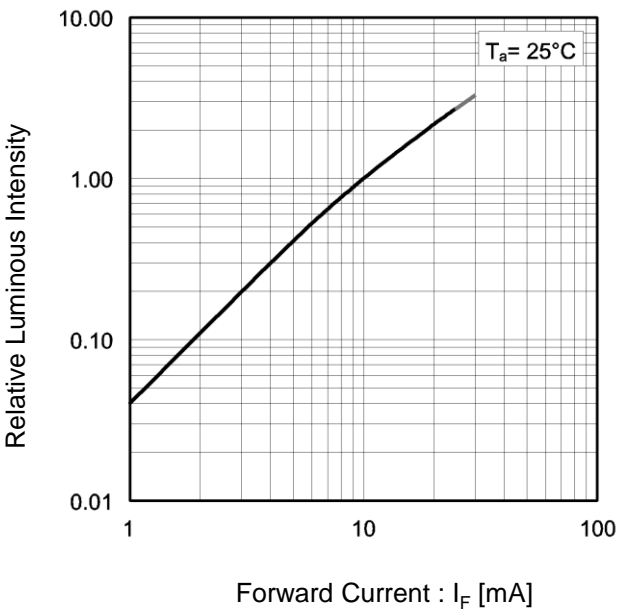


Fig.3 Relative Luminous Intensity vs. Case Temperature

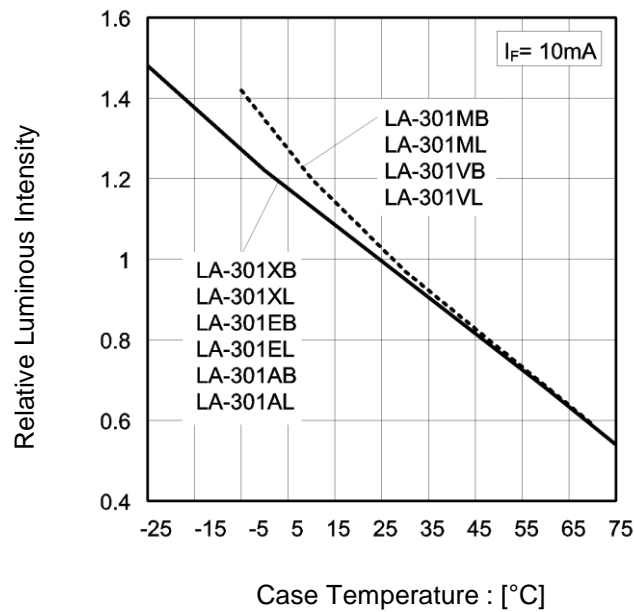
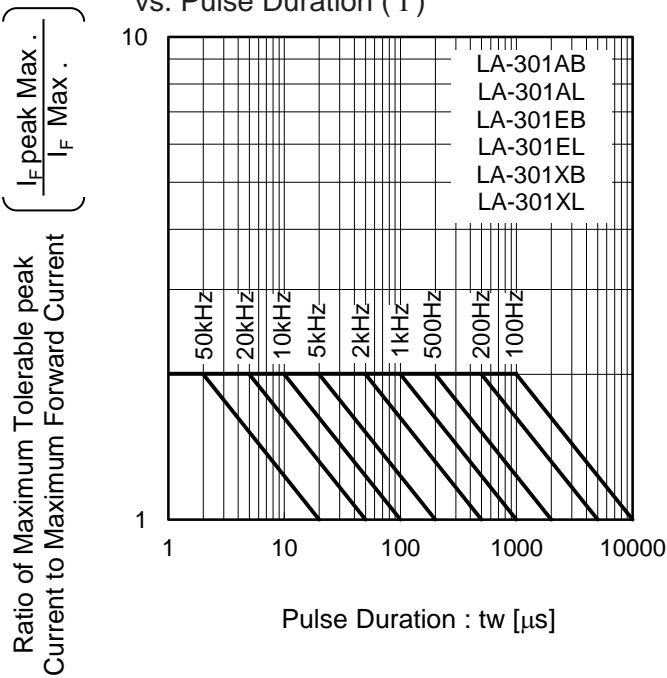


Fig.4 Ratio of Maximum Tolerable Peak Current vs. Pulse Duration (I)



●Electrical and optical characteristics curves

Fig.5 Ratio of Maximum Tolerable Peak Current vs. Pulse Duration (II)

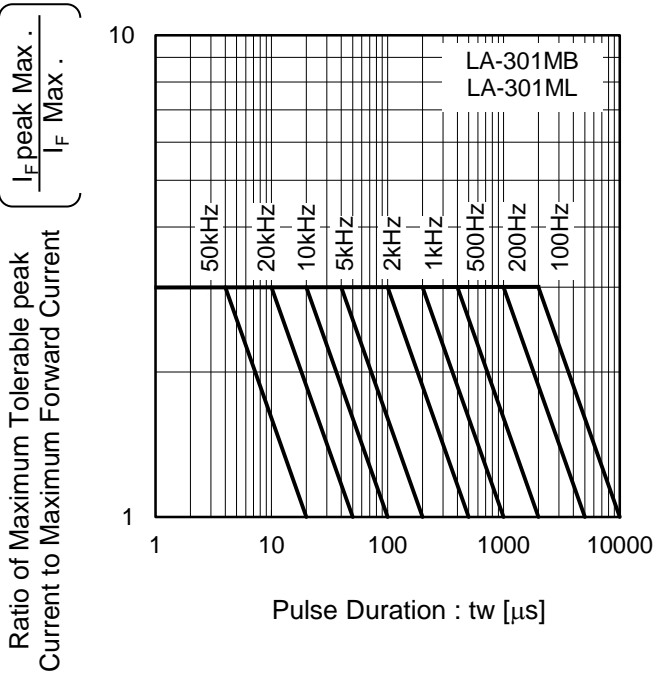


Fig.6 Ratio of Maximum Tolerable Peak Current vs. Pulse Duration (III)

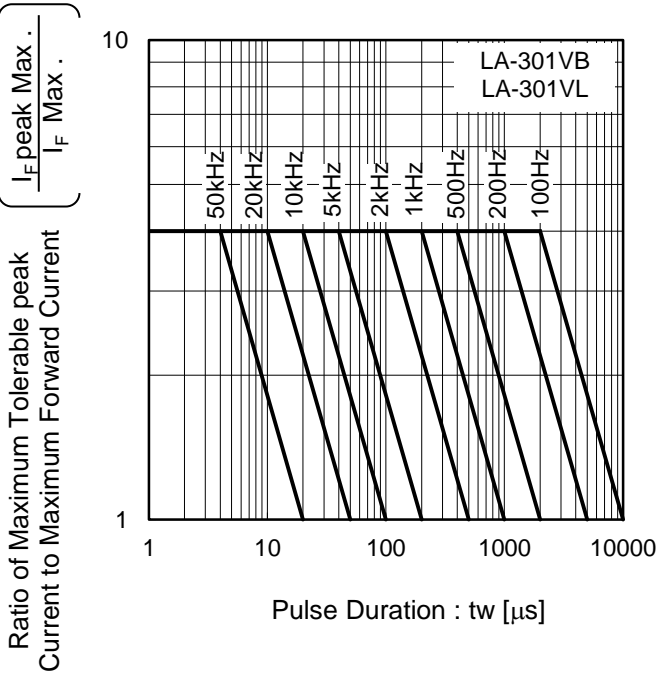
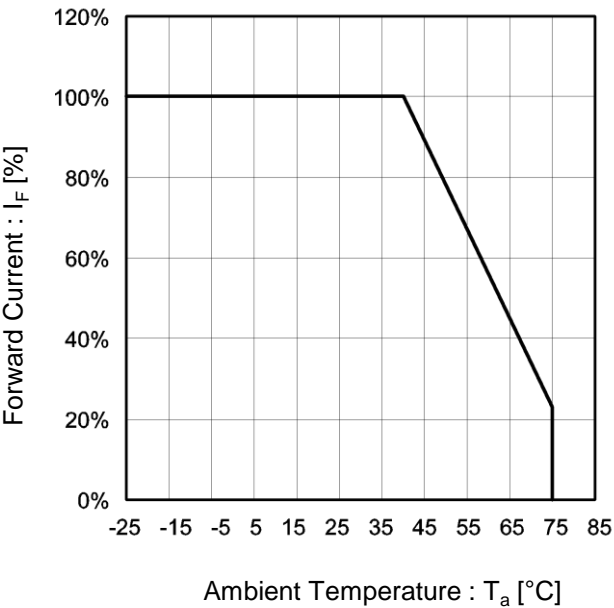


Fig.7 Derating



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