



**●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	$P_D / \text{seg}$	40	65	65	65	60	mW
Forward current	$I_F$	15	25	25	25	20	mA
Peak forward current	$I_{FP}$	60 * <sup>1</sup>	50 * <sup>2</sup>	50 * <sup>2</sup>	50 * <sup>2</sup>	60 * <sup>1</sup>	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					$^\circ\text{C}$

\*<sup>1</sup> Pulse width 1ms, duty 1 / 5

\*<sup>2</sup> 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	$\mu\text{A}$
Peak wavelength	$\lambda_p$	$I_F = 10\text{mA}$	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	$\lambda_p$	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

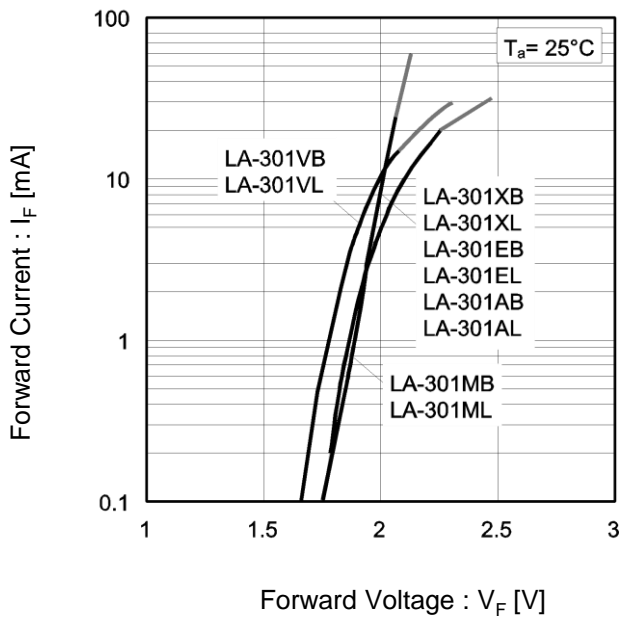


Fig.2 Relative Luminous Intensity vs. Forward Current

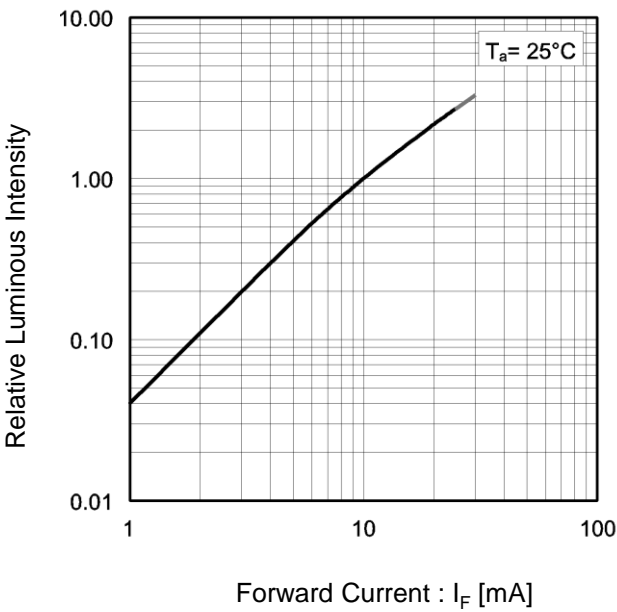


Fig.3 Relative Luminous Intensity vs. Case Temperature

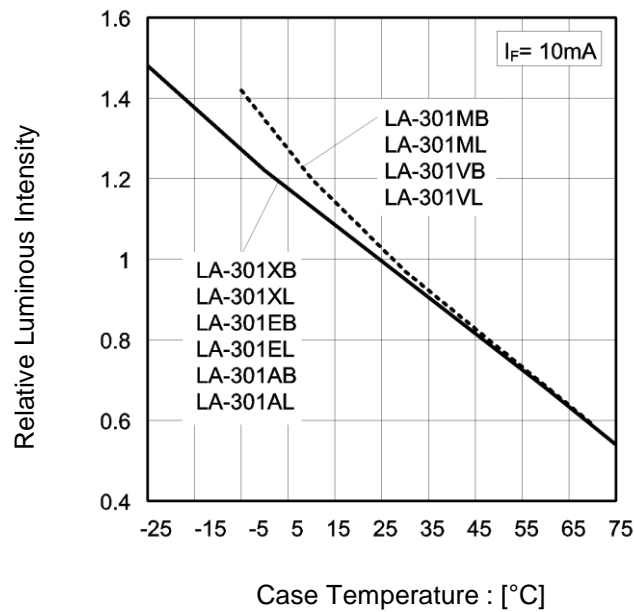
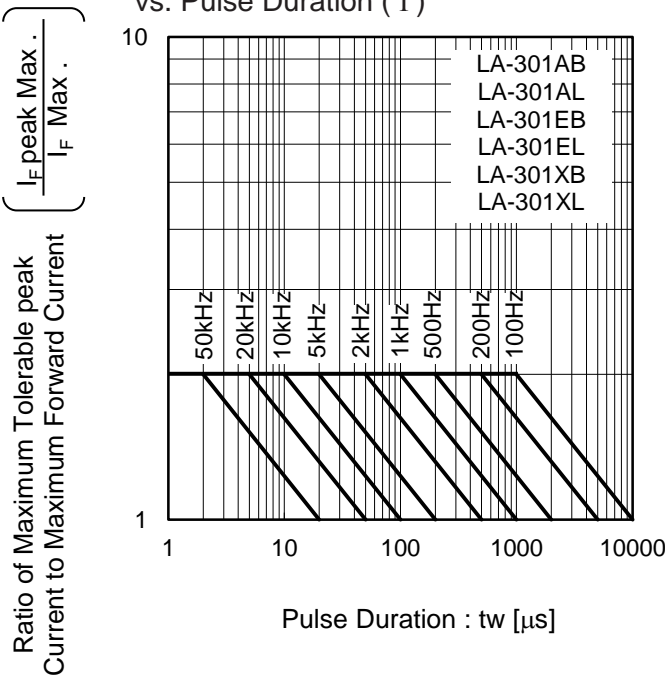


Fig.4 Ratio of Maximum Tolerable Peak Current vs. Pulse Duration ( I )



●Electrical and optical characteristics curves

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

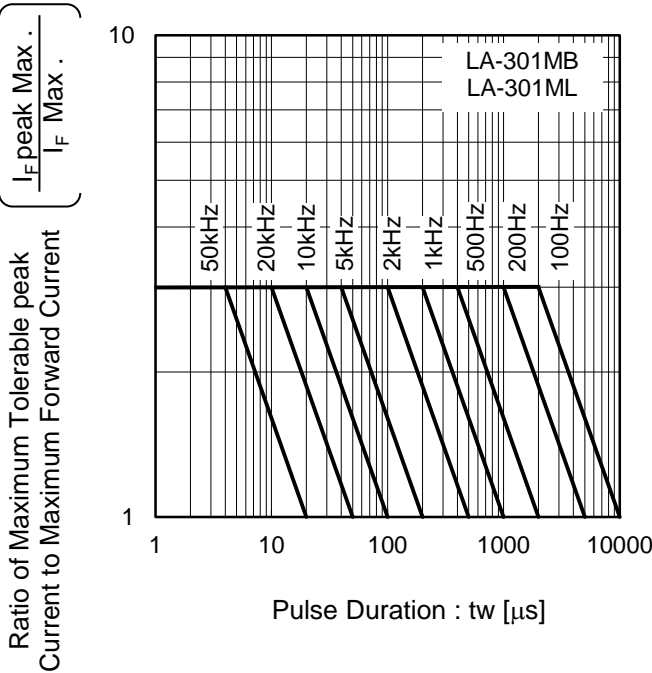


Fig.6 Ratio of Maximum Tolerable Peak Current vs. Pulse Duration ( III )

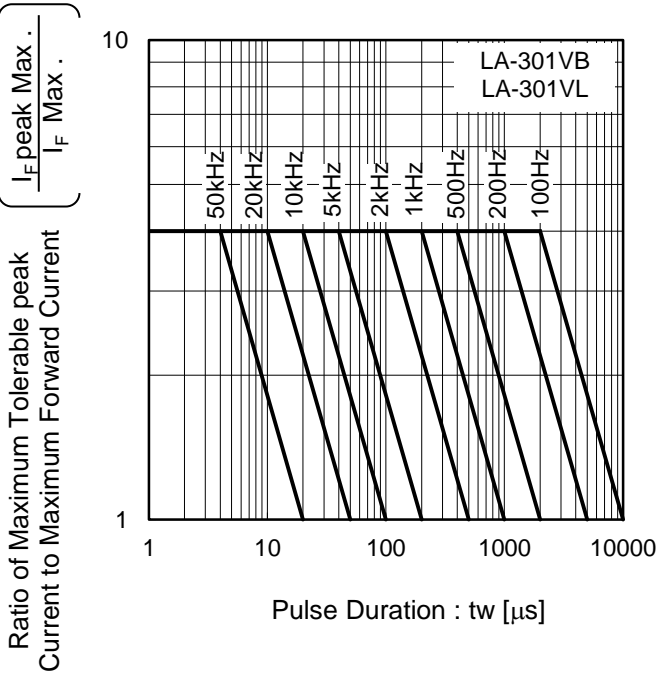
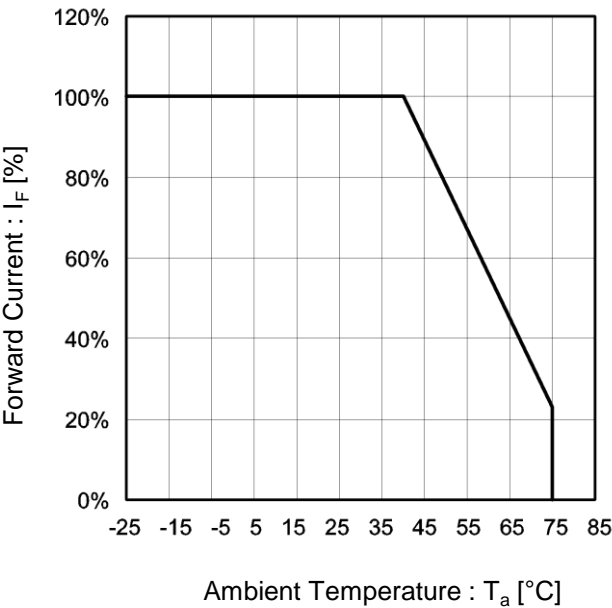


Fig.7 Derating



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## LA-301EB - Web Page

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Part Number	LA-301EB
Package	LA-301EB
Unit Quantity	160
Minimum Package Quantity	
Packing Type	Filmpack
Constitution Materials List	inquiry
RoHS	Yes