

Infrared LED

L4492

Low forward voltage LED for camera auto-focus



Features

- High radiant output power
- Low forward voltage: 2.4 V ($I_F=1.0$ A)
- High radiant output power by constant voltage drive
- Small emission spot (reflector size)

Applications

- Auto-focus

■ Absolute maximum ratings ($T_a=25$ °C)

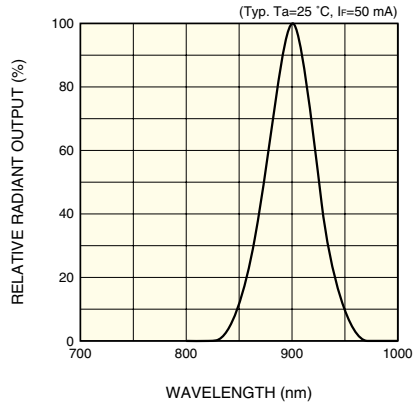
Parameter	Symbol	Condition	Value	Unit
Forward current	I_F		80	mA
Reverse voltage	V_R		3	V
Pulse forward current	I_{FP}	Pulse width=10 μ s Duty ratio=1 %	1.0	A
Operating temperature	T_{opr}		-30 to +85	°C
Storage temperature	T_{stg}		-40 to +100 *	°C

* Guaranteed to resist temperature cycle test of up to 5 cycles.

■ Electrical and optical characteristics ($T_a=25$ °C)

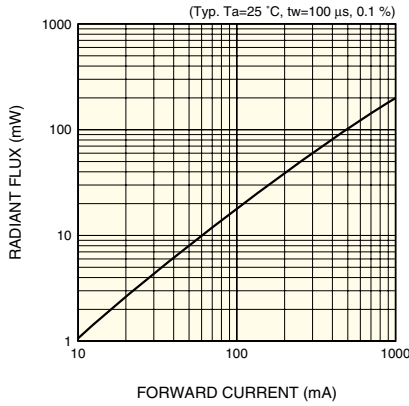
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Peak emission wavelength	λ_p	$I_F=50$ mA	880	900	930	nm
Spectral half width	$\Delta\lambda$	$I_F=50$ mA	-	60	-	nm
Forward voltage	V_F	$I_F=50$ mA	-	1.35	1.45	V
Pulse forward voltage	V_{FP}	$I_F=1.0$ A	-	2.4	2.8	V
Reverse current	I_R	$V_R=3$ V	-	-	30	μ A
Radiant flux	ϕ_e	$I_F=50$ mA	6.0	8.0	-	mW
Radiant illuminance	P_E	$I_F=50$ mA	-	1.1	-	mW/cm ²
Rise time	t_r	$I_F=50$ mA, 10 to 90 %	-	0.45	0.7	μ s
Fall time	t_f	$I_F=50$ mA, 90 to 10 %	-	0.45	0.7	μ s

Emission spectrum



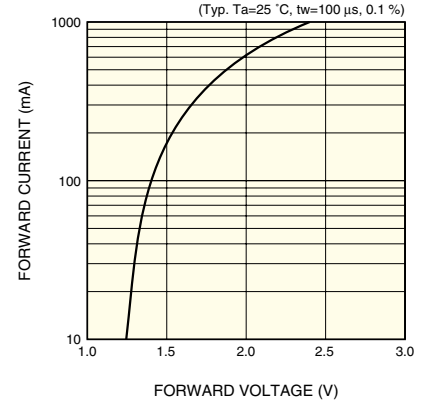
KLEDB0138EB

Radiant flux vs. forward current



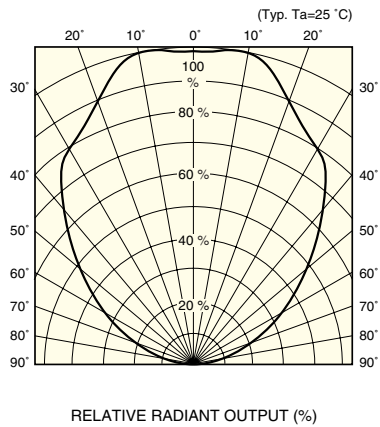
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Forward current vs. forward voltage



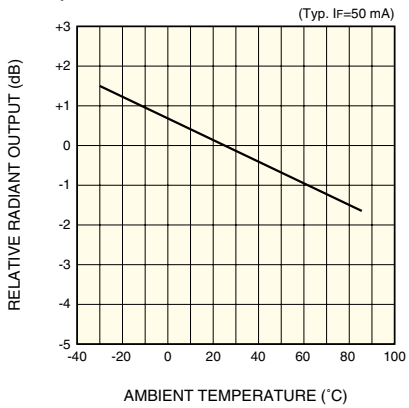
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Directivity



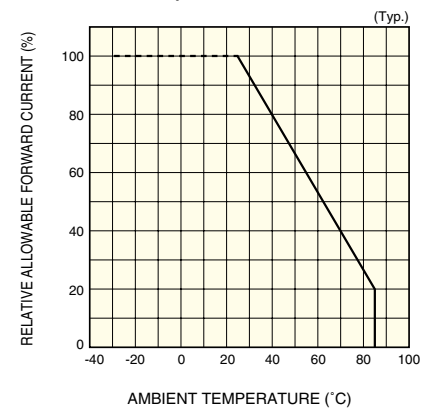
KLEDB0199EA

Radiant output vs. ambient temperature



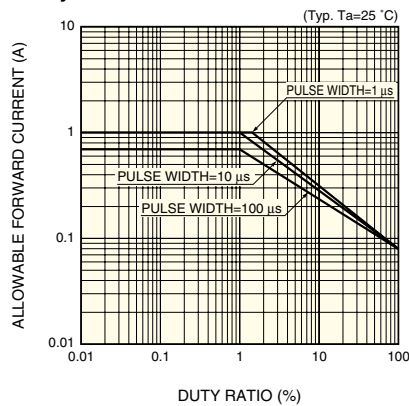
KLEDB0200EA

Allowable forward current vs. ambient temperature



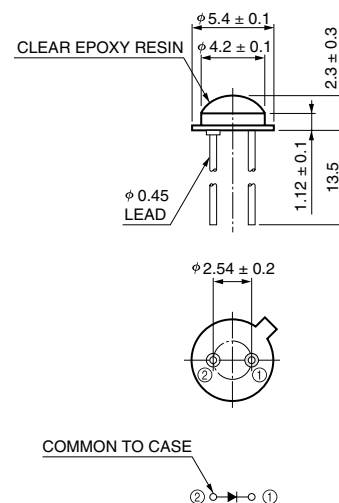
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Allowable forward current vs. duty ratio



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Dimensional outline (unit: mm)



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