

Infrared LED

L2388 series

TO-46 style GaAs infrared LED



Features

- High radiant output power
- High reliability

Applications

- Optical switches
- Automatic control systems
- Auto-focus

■ Absolute maximum ratings (Ta=25 °C)

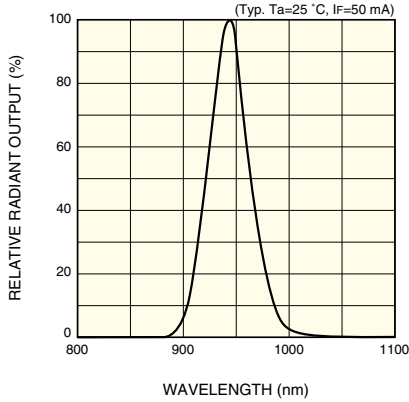
Parameter	Symbol	Condition	Value	Unit
Forward current	IF		80	mA
Reverse voltage	VR		5	V
Pulse forward current	IFP	Pulse width=10 μs Duty ratio=1 %	1.0	A
Operating temperature	Topr		-30 to +85	°C
Storage temperature	Tstg		-40 to +100 *	°C

* L2388 is guaranteed to resist temperature cycle test of up to 5 cycles.

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

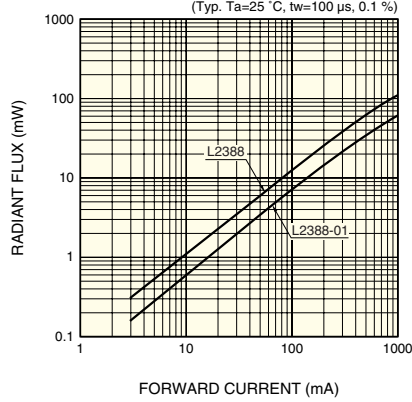
Parameter	Symbol	Condition	L2388			L2388-01			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	
Peak emission wavelength	λp	IF=50 mA	920	945	970	920	945	970	nm
Spectral half width	Δλ	IF=50 mA	-	45	-	-	45	-	nm
Forward voltage	VF	IF=50 mA	-	1.3	1.4	-	1.3	1.4	V
Pulse forward voltage	VFP	IF=1.0 A	-	2.3	2.9	-	2.3	2.9	V
Reverse current	IR	VR=5 V	-	-	5	-	-	5	μA
Radiant flux	φe	IF=50 mA	4.5	6.0	-	2.6	3.4	-	mW
Radiant illuminance	PE	IF=50 mA	-	0.6	-	-	1.4	-	mW/cm ²
Rise time	tr	IF=50 mA, 10 to 90 %	-	1.2	2.0	-	1.2	2.0	μs
Fall time	tf	IF=50 mA, 90 to 10 %	-	1.3	2.0	-	1.3	2.0	μs

Emission spectrum



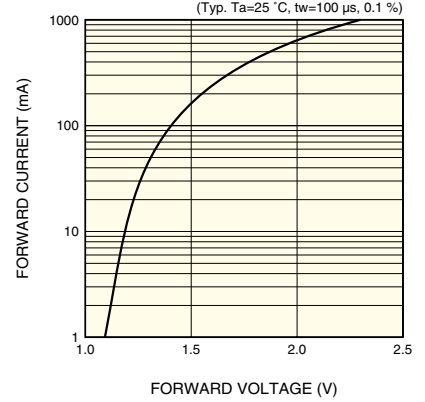
KLEDB0122EA

Radiant flux vs. forward current



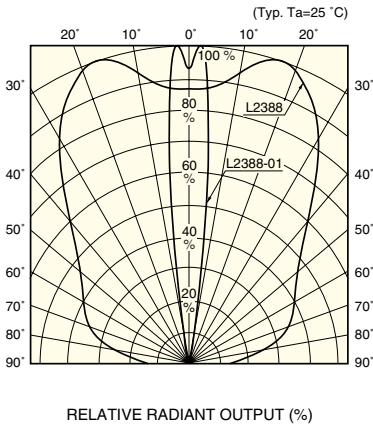
KLEDB0209EA

Forward current vs. forward voltage



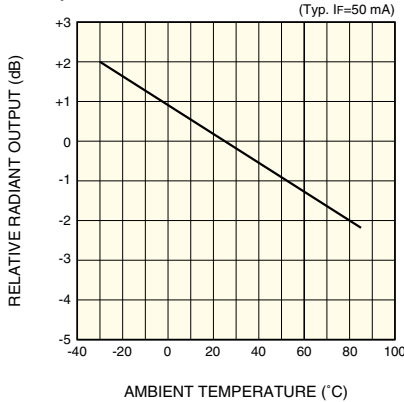
KLEDB0210EA

Directivity



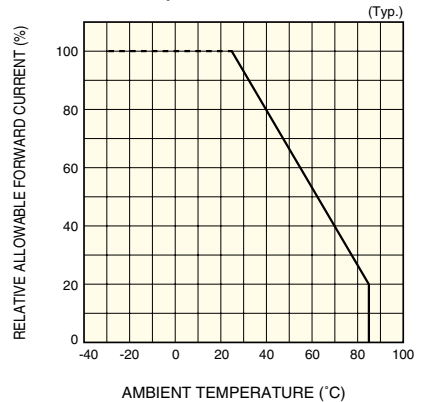
KLEDB0123EA

Radiant output vs. ambient temperature



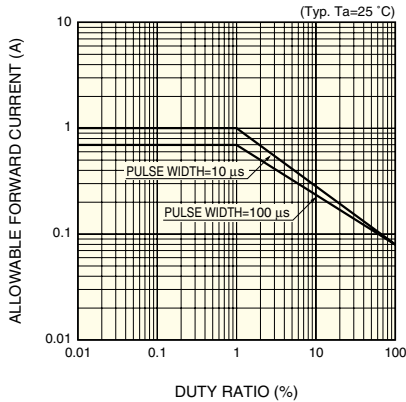
KLEDB0211EA

Allowable forward current vs. ambient temperature



KLEDB0027EB

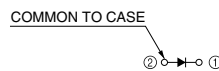
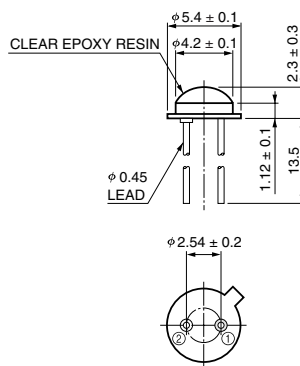
Allowable forward current vs. duty ratio



KLEDB0038EA

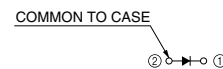
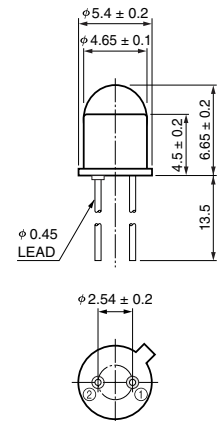
Dimensional outlines (unit: mm)

① L2388



KLEDA0009ED

② L2388-01



KLEDA0052EB

HAMAMATSU

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