



L2204/L2402/L3458 series

## 4-pin plastic package, infrared LED

### Features

- High radiant output power
- High reliability
- Long life

### Applications

- Optical switches
- Automatic control systems

### Absolute maximum ratings (Ta=25 °C)

Parameter	Symbol	Condition	Value	Unit
Forward current	IF		65	mA
Reverse voltage	VR		5	V
Pulse forward current	IFP	Pulse width=10 μs Duty ratio=1%	1.0	A
Operating temperature	Topr		-25 to +80	°C
Storage temperature	Tstg		-30 to +100	°C

Note: Exceeding the absolute maximum ratings even momentarily may cause a drop in product quality. Always be sure to use the product within the absolute maximum ratings.

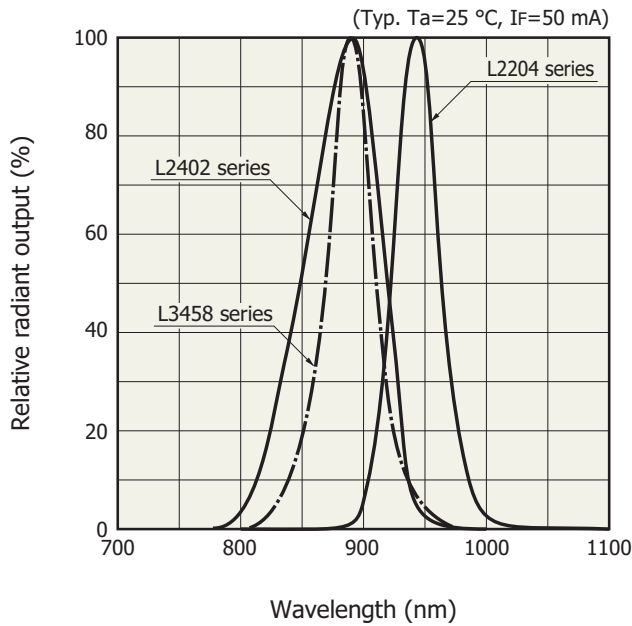
### Electrical and optical characteristics (Ta=25 °C)

Parameter	Symbol	Condition	L2204/-01/-03			L2402/-01/-02			L3458/-01/-03			Unit
			Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
Peak emission wavelength	λp	IF=50 mA	920	945	970	870	890	920	870	890	920	nm
Spectral half width	Δλ	IF=50 mA	-	45	-	-	80	-	-	50	-	nm
Forward voltage	VF	IF=50 mA	-	1.30	1.40	-	1.40	1.50	-	1.40	1.60	V
Pulse forward voltage	VFP	IF=1 A*1	-	2.3	2.6	-	2.8	3.4	-	3.0	3.6	V
Reverse current	IR	VR=5 V	-	-	5	-	-	5	-	-	5	μA
Radiant flux	φe	IF=50 mA	4.0	6.0	-	7.0	9.0	-	9.0	13.0	-	mW
Radiant illuminance	PE	IF=50 mA	-	0.5	-	-	0.8	-	-	1.0	-	mW/cm <sup>2</sup>
Rise time	tr	IF=50 mA, 10 to 90%	-	1.2	2.0	-	0.45	0.7	-	0.45	0.7	μs
Fall time	tf	IF=50 mA, 90 to 10%	-	1.3	2.0	-	0.45	0.7	-	0.45	0.7	μs

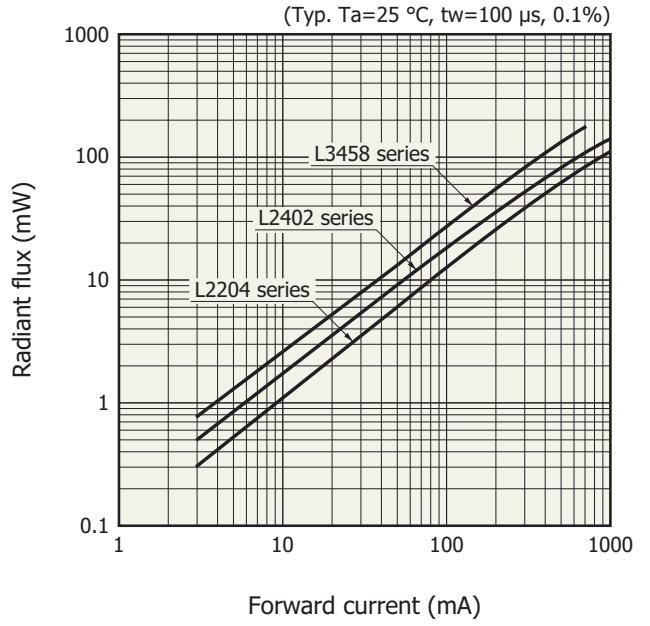
\*1: Pulse width 100 μs, duty ratio 0.1%

These products do not support reflow soldering. Solder them by hand.

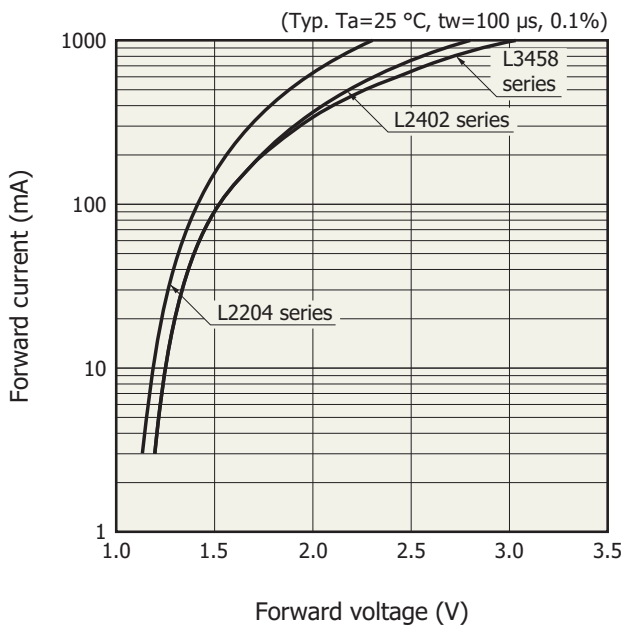
**Emission spectrum**



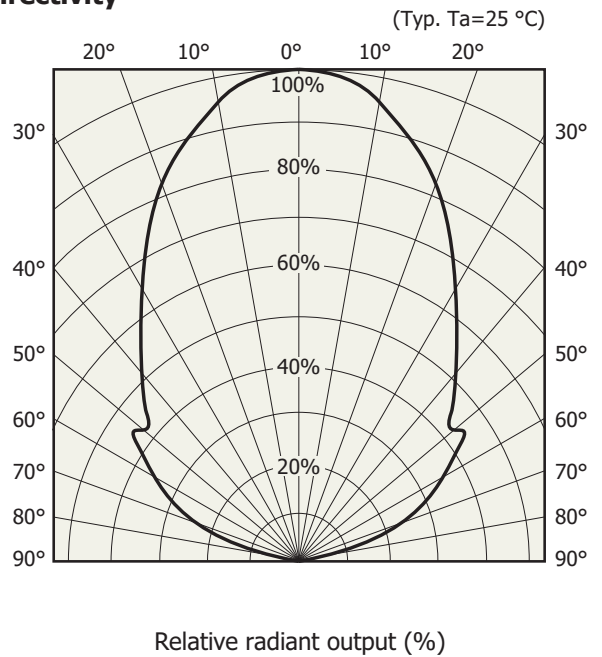
**Radiant flux vs. forward current**



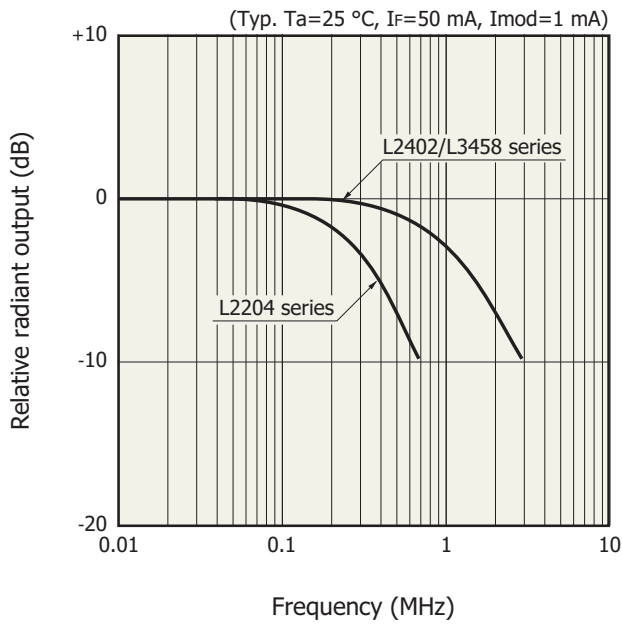
**Forward current vs. forward voltage**



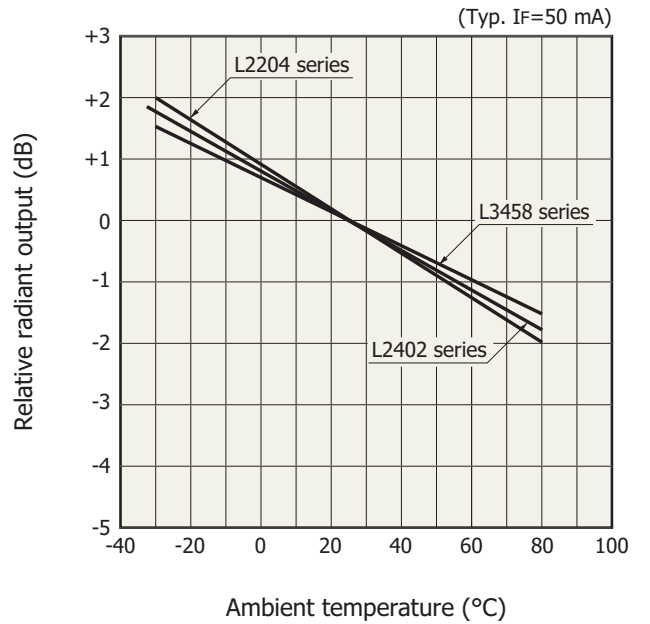
**Directivity**



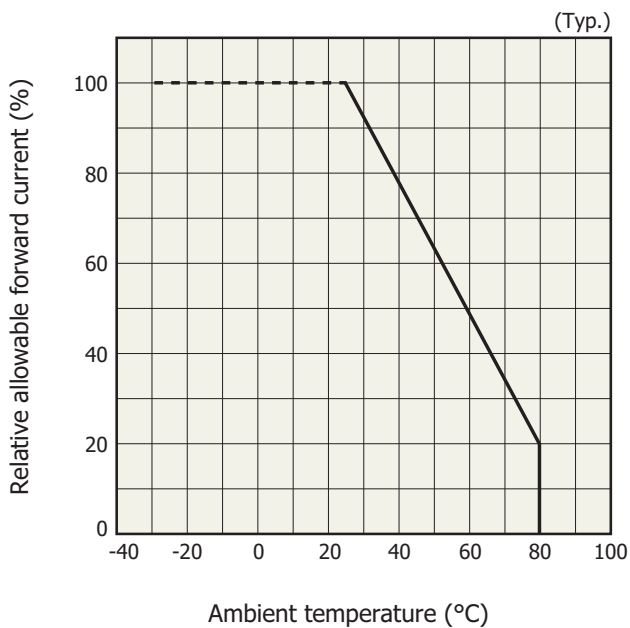
Frequency response



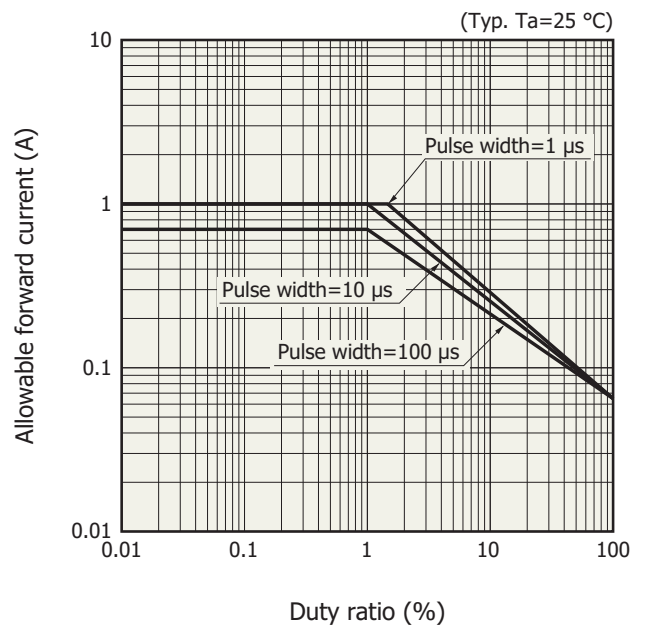
Radiant output vs. ambient temperature



Allowable forward current vs. ambient temperature

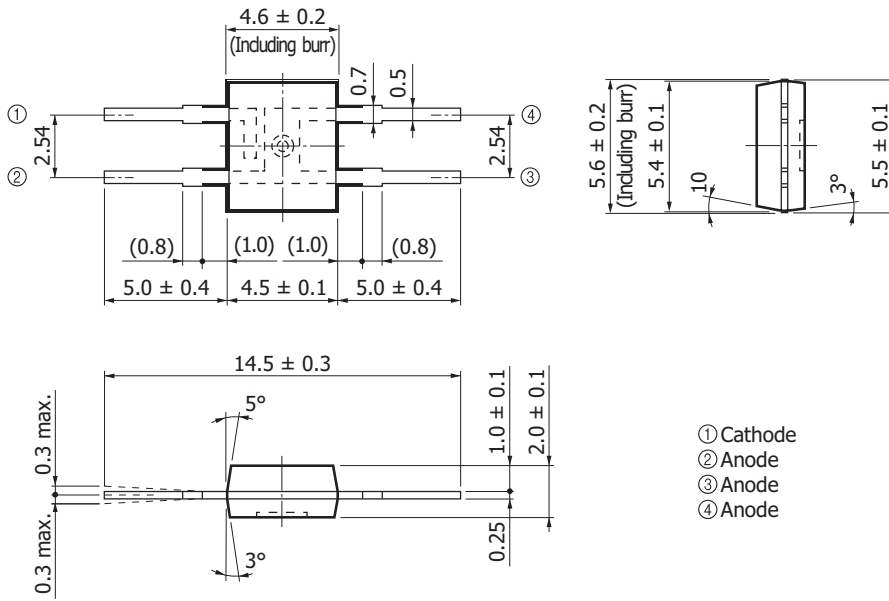


Allowable forward current vs. duty ratio



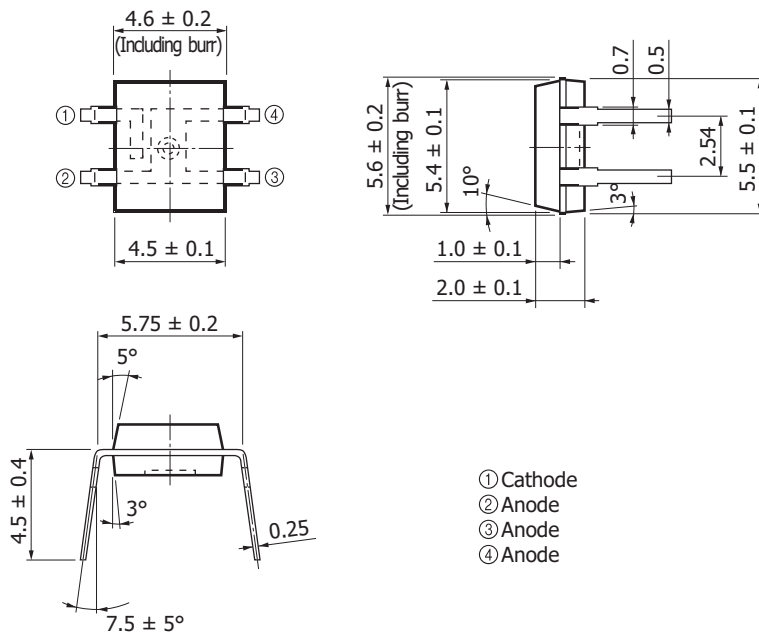
Dimensional outlines (unit: mm)

L2204, L2402, L3458



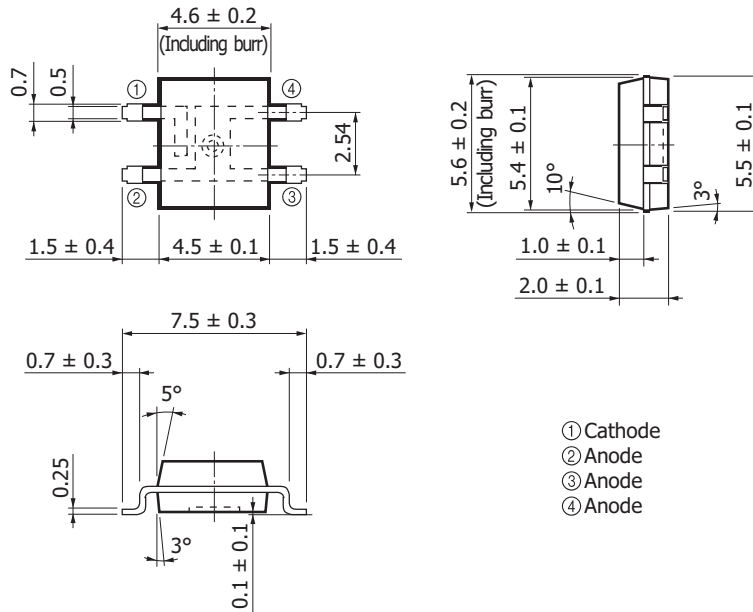
KLEDA0016EB

L2204-01, L2402-01, L3458-01



KLEDA0017EB

L2204-03, L2402-02, L3458-03



KLEDA0054EB

Information described in this material is current as of January, 2013.

Product specifications are subject to change without prior notice due to improvements or other reasons. This document has been carefully prepared and the information contained is believed to be accurate. In rare cases, however, there may be inaccuracies such as text errors. Before using these products, always contact us for the delivery specification sheet to check the latest specifications.

The product warranty is valid for one year after delivery and is limited to product repair or replacement for defects discovered and reported to us within that one year period. However, even if within the warranty period we accept absolutely no liability for any loss caused by natural disasters or improper product use.

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