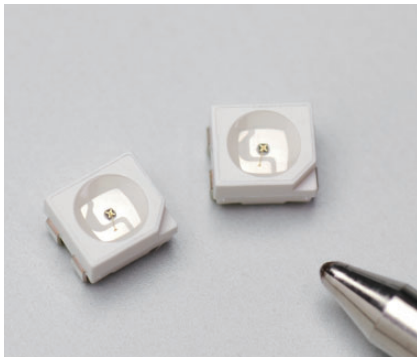


L9725-01



High output power LED of compact SMD type

Features

- High radiant output power
- Compact / surface mount type package
- High reliability
- Low price
- Compatible with lead-free reflow soldering (RoHS compliance)

Applications

- Optical switches
- Automobile use

Absolute maximum ratings (Ta=25 °C unless otherwise noted)

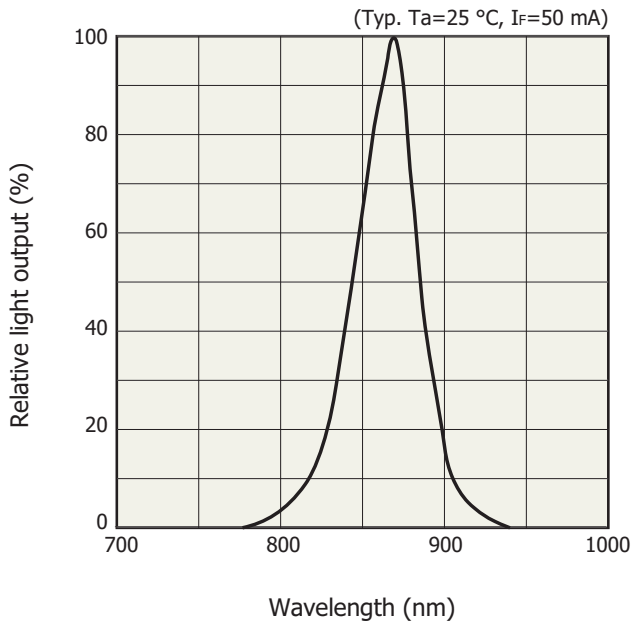
Parameter	Symbol	Condition	Specification	Unit
Reverse voltage	V _R		5	V
Forward current	I _F		80	mA
Derating rate of forward current	-	T _a > 25 °C	0.7	mA/°C
Pulse forward current	I _{FP}	Pulse width=10 μs Duty ratio=1%	0.5	A
Derating rate of pulse forward current	-	T _a > 25 °C	4.6	mA/°C
Power dissipation	P _d		150	mW
Operating temperature	T _{opr}		-30 to +90	°C
Storage temperature	T _{stg}		-40 to +125	°C
Reflow soldering condition	T _{sol}	JEDEC level 4	Peak temperature 250 °C, 2 times	-

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)

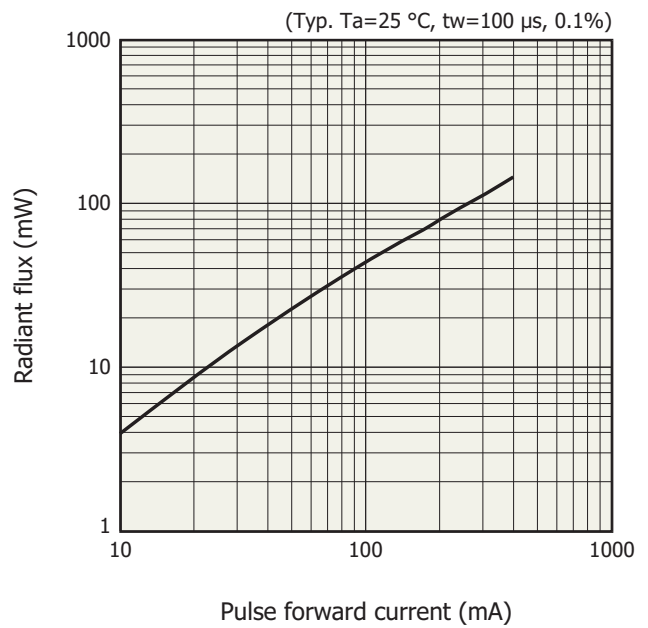
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Peak emission wavelength	λ _p	I _F =50 mA	840	870	900	nm
Spectral half-width	Δλ	I _F =50 mA	-	45	70	nm
Radiant flux	φ _e	I _F =50 mA	18	23	29	mW
Forward voltage	V _F	I _F =50 mA	-	1.45	1.75	V
Pulse forward voltage	V _{FP}	I _{FP} =500 mA	-	2.3	3.5	V
Reverse current	I _R	V _R =5 V	-	-	5	μA
Cutoff frequency	f _c	I _F =30 mA ± 4 mA _{p-p}	25	40	-	MHz

Emission spectrum



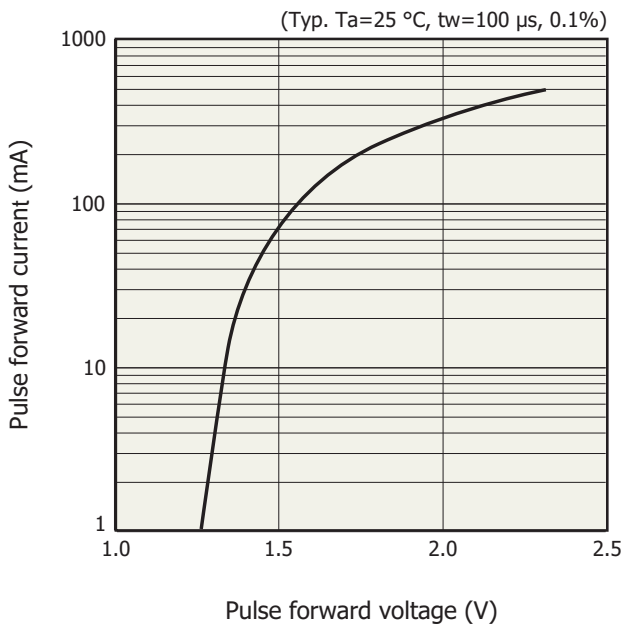
KLED80357EA

Radiant flux vs. pulse forward current

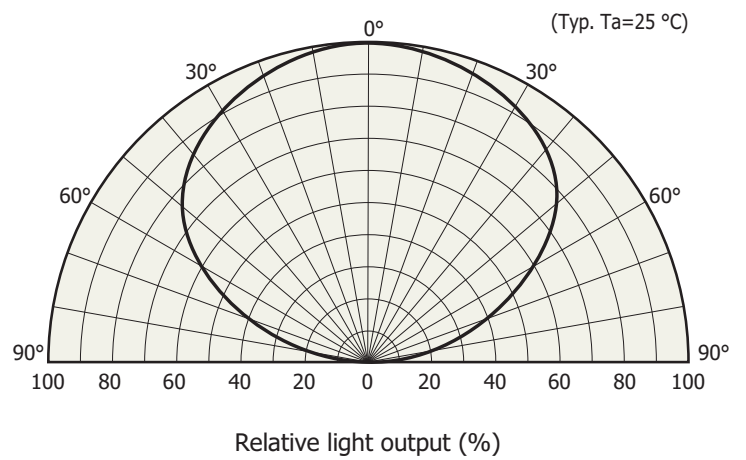


KLED80358EA

Pulse forward current vs. pulse forward voltage **Directivity**

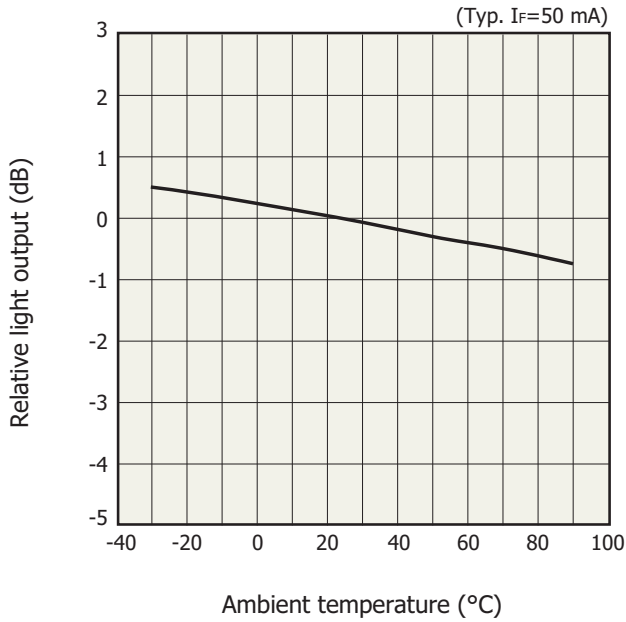


KLED80359EA



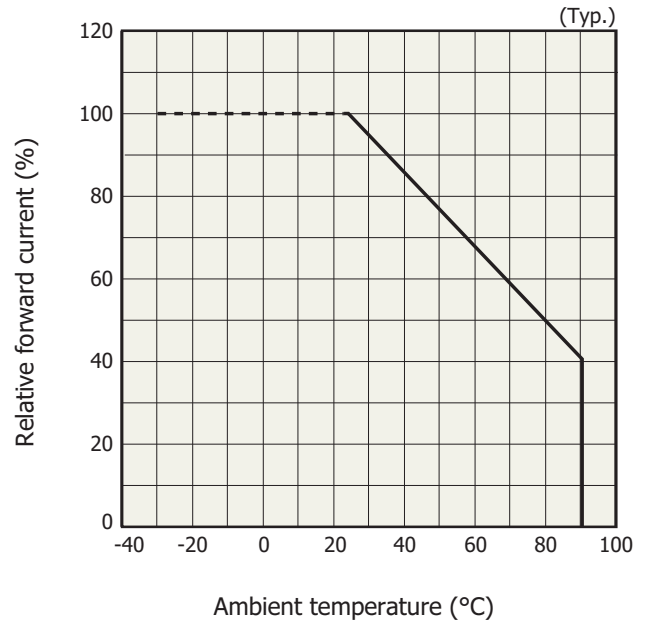
KLED80360EA

❑ Light output vs. ambient temperature



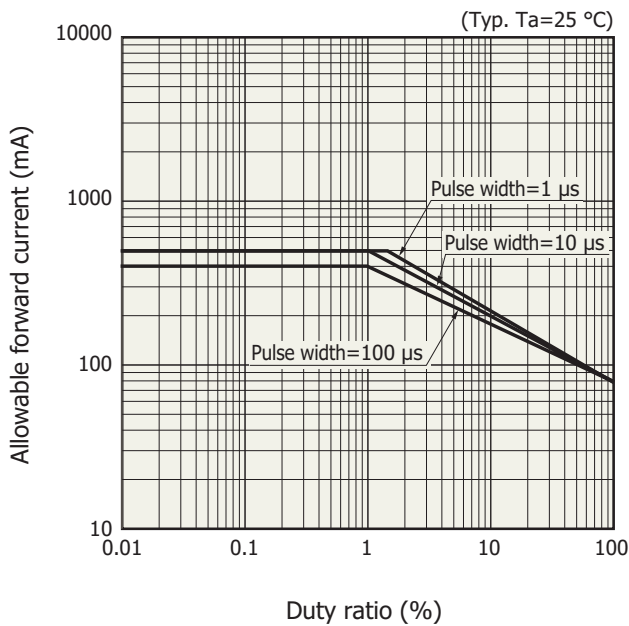
KLEDB0361EA

❑ Allowable forward current vs. ambient temperature



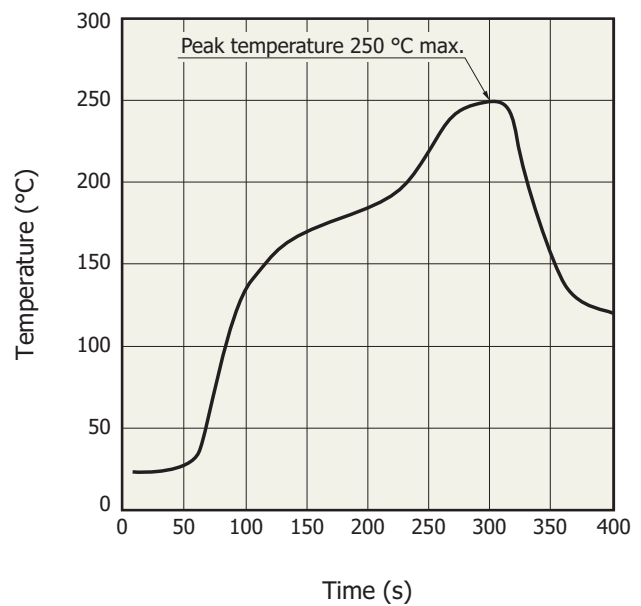
KLEDB0362EA

❑ Allowable forward current vs. duty ratio



KLEDB0363EA

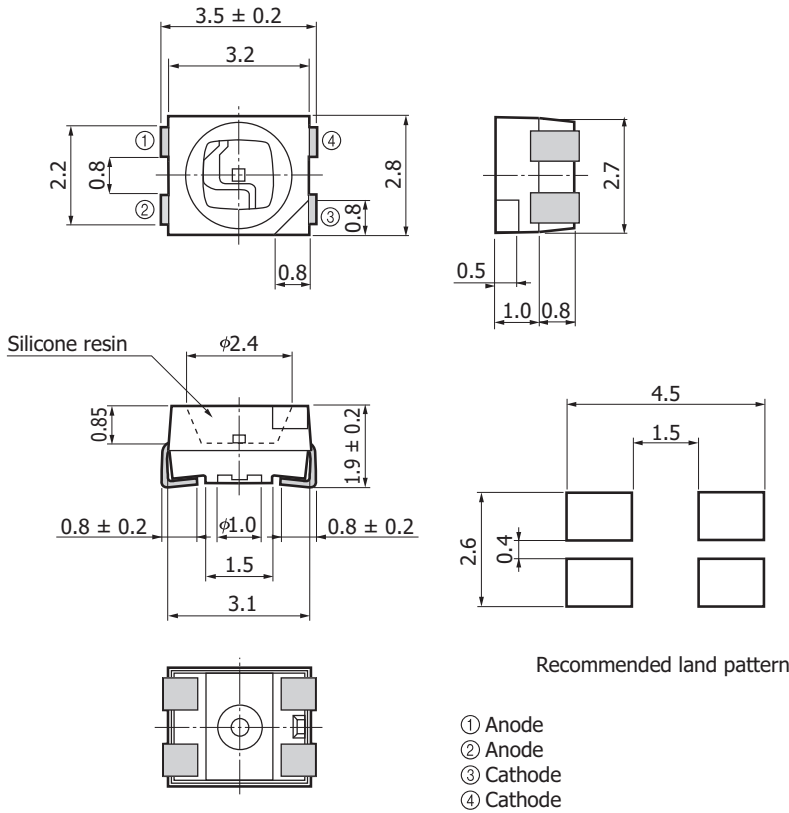
❑ Recommended solder reflow condition



- After unpacking, store this device in an environment at a temperature from 5 to 30 °C and a humidity below 60%, and perform reflow soldering on this device within 72 hours.
- Thermal stress applied to the device during reflow soldering differs depending on the PC boards and reflow oven being used.
- When setting the reflow conditions, make sure that the reflow soldering process does not degrade device reliability.

KLEDB0370EA

Dimensional outline (unit: mm, tolerance unless otherwise noted: ± 0.1)



KLEDA0095EA

Information described in this material is current as of July, 2012.

Product specifications are subject to change without prior notice due to improvements or other reasons. Before assembly into final products, please contact us for the delivery specification sheet to check the latest information.

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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