



UVLED375-10-30

- Ultraviolet light emitting diode
- 375 nm, 15 mW
- High radiant intensity
- GaN



Description

UVLED375-10-30 is a GaN based Light Emitting Diode emitting at typically 375 nm with rated output power of 10 mW, mounted on an Ag-plated Copper Alloy lead frame with a 5 mm clear UV resistant epoxy resin. **UVLED375-10-30** features built-in Zener diode for ESD protection device, and is RoHS compliant

Maximum Rating

Parameter	Symbol	Values		Unit
		Min.	Max.	
Power Dissipation ($T_A=25^\circ\text{C}$)	P_D		80	mW
Forward Current ($T_A=25^\circ\text{C}$)	I_F		20	mA
Pulse Forward Current ($T_A=25^\circ\text{C}$)*	I_{FP}^*		80	mA
Reverse Current ($T_A=25^\circ\text{C}$, $I_R=10\mu$)	I_R		85	mA
Operating Temperature	T_{CASE}	- 30	+ 85	$^\circ\text{C}$
Storage Temperature	T_{STG}	- 40	+ 100	$^\circ\text{C}$
Junction Temperature	T_J		100	$^\circ\text{C}$

*duty cycle $\leq 10\%$, puls width ≤ 10 ms

Electro-Optical Characteristics ($T_{CASE} = 25^\circ\text{C}$, $I_F = 15$ mA)

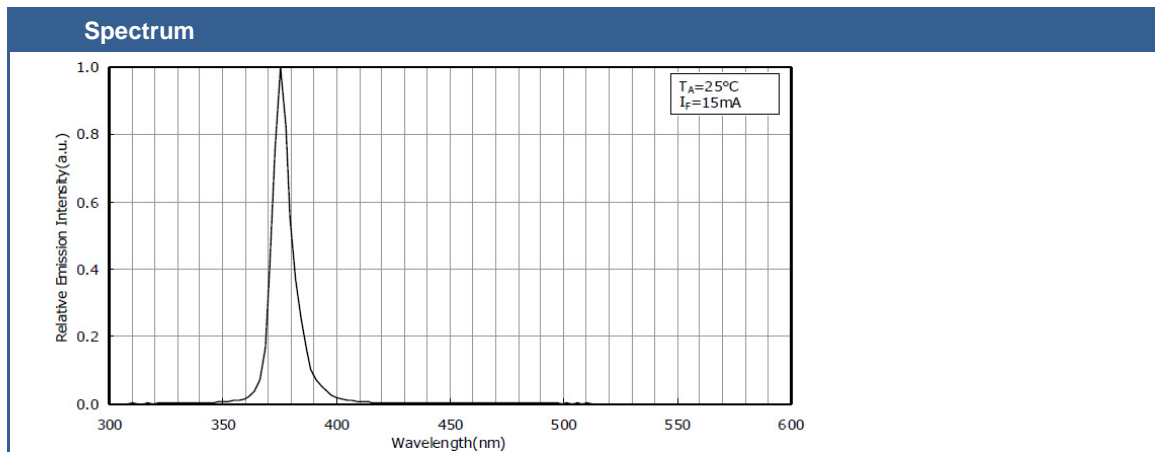
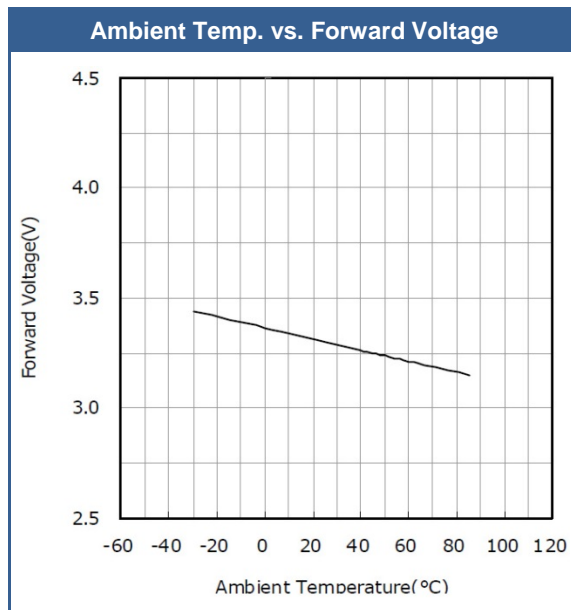
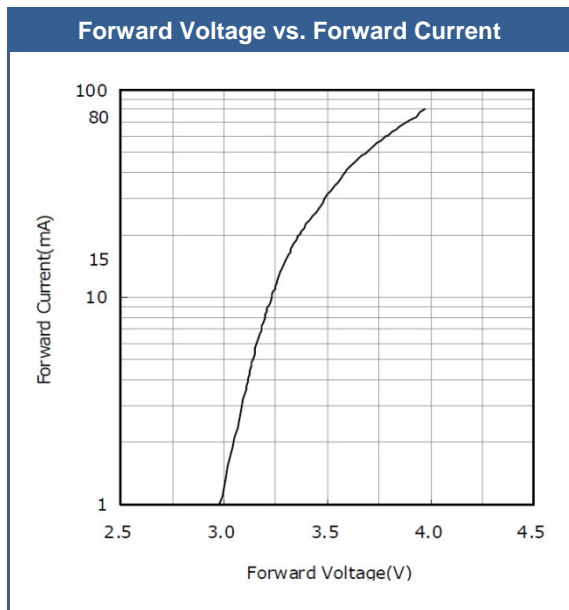
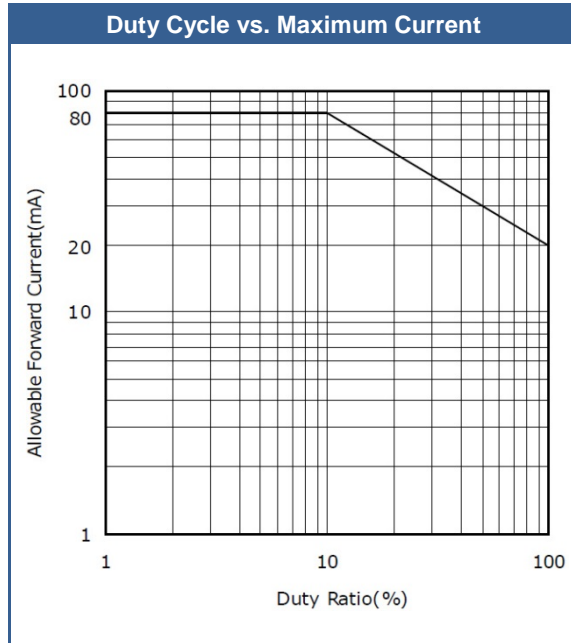
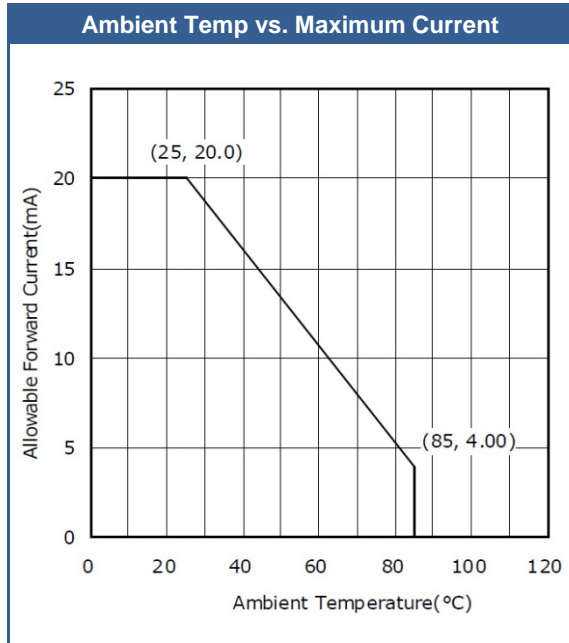
Parameter	Symbol	Values			Unit
		Min.	Typ.	Max.	
Peak Wavelength	λ_P	370	375	380	nm
Spectral Width (FWHM)	$\Delta\lambda$		9		nm
Radiated Power	P_O		15.1		mW
Forward Voltage	V_F	2.9	3.3	4.0	V
Viewing Half Angle	$\theta_{1/2}$		± 20		deg.

Ranking ($T_{CASE} = 25^\circ\text{C}$, $I_F = 15$ mA)

Parameter	Rank	Values		Unit
		Min.	Max.	
Radiated Power (P_O)	A	10	14	mW
	B	14	19	
	C	19	27	

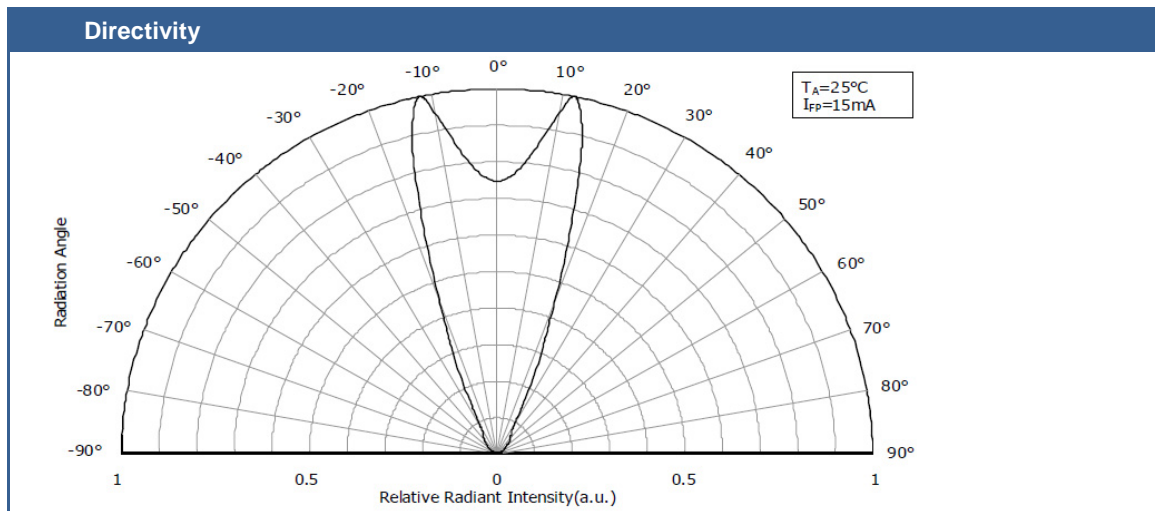
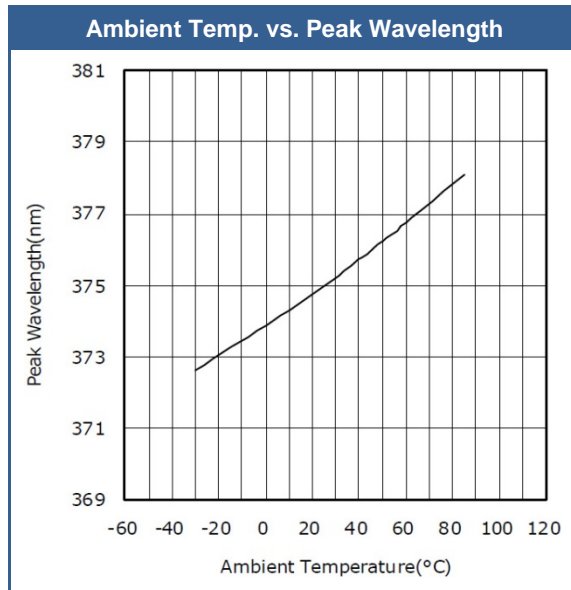
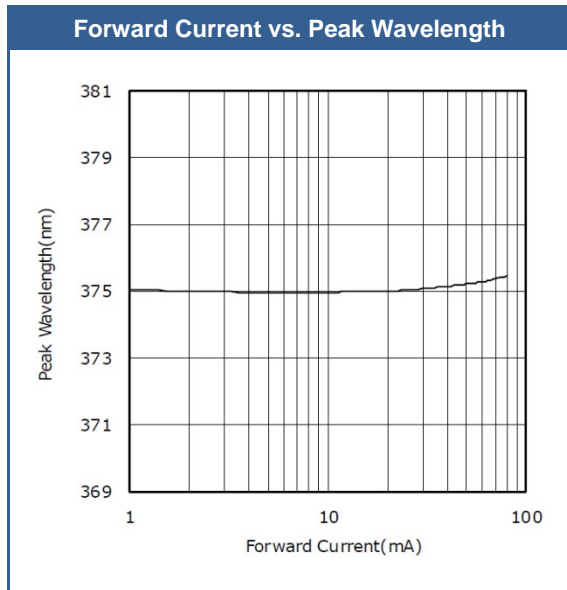
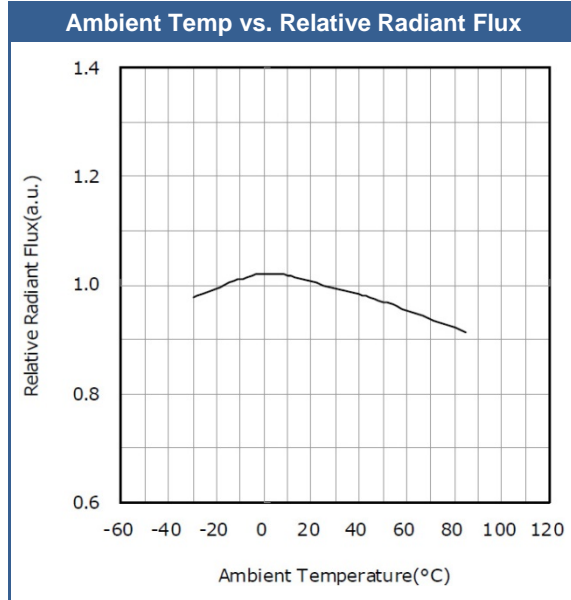
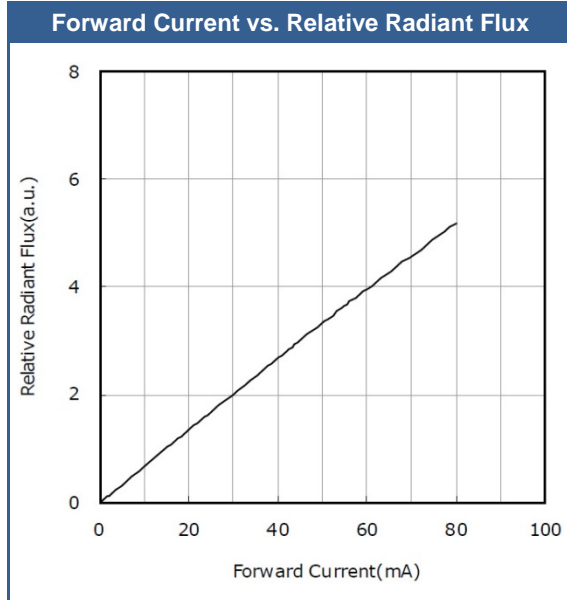


Performance Characteristics



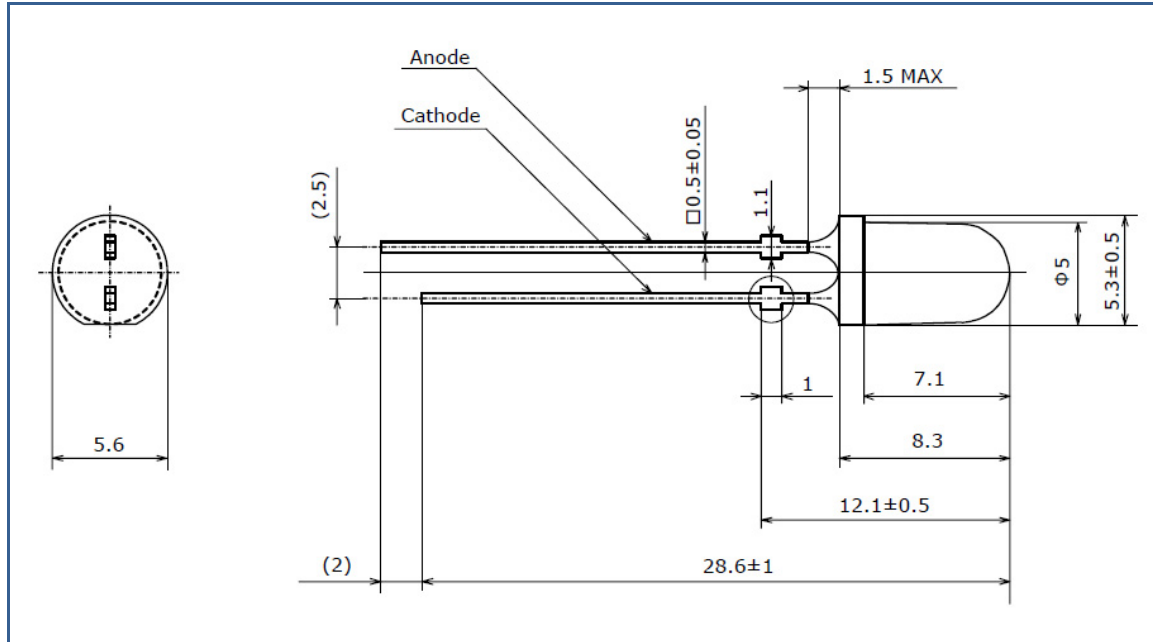


Performance Characteristics





Outline Dimensions



All dimensions in mm

Soldering

Hand Soldering Condition

Temperature	350 °C max.
Soldering Time	3 s max.

Dip Soldering Condition

Pre-Heat Temperature	120 °C max.
Pre-Heat Time	60 s max.
Solder Bath Temperature	260 °C
Dipping Time	10 s max.

- Do avoid overheating of the LED
- Do avoid electrostatic discharge (ESD)
- Do avoid mechanical stress, shock, and vibration
- Do only use non-corrosive flux.
- Do only solder the leads. Soldering of header or cap will damage the LED
- Do only cut the leads at room temperature with an ESD protected tool
- Do not solder closer than 3 mm from base of the header
- Do form leads prior to soldering
- Do not impose mechanical stress on the header when forming the leads
- Do not apply current to the LED until it has cooled down to room temperature after soldering

