CREATIVE GMBH LED®

Product Specification

CQA97002UVN 260nm UV-C LED

creativeled.com

Features

* Typ. Radiation of 125°
* Based on AlGaN substrat
* Vacuumized Ceramic LED
* High power and efficiency
* Reflow-soldering
* RoHs and REACH conform
* Most efficient heat dissipation as backside can be soldered directly to heat sink (non-conductive)

Applications

Disinfection
Phototherapy
UV curing
Fluorescent spectroscopy

*** Safety Note :**

This product can be driven with high level risks for human eyes and body acc. IEC 825 and EN62471

Optical and Electrical Characteristics @Tambient =25°C

Symbol	Parameter	MIN	Typ	MAX	UNIT	Test conditions
I F	DC Forward current			500	mA	
I Peak	Peak Forward current			2000	mA	Tp < 10µsec. ; T=1:100 ; Rtherm < 100K/W
V F	Forward Voltage	5,0		7,0	V	IF = 500mA
V R	Reverse Voltage			0	V	
λ Peak	Peak Wavelength	255		260	nm	IF = 20mA
Δλ 0,5	Bandwide of half power		13		nm	IF = 20mA
t r	Rise time		20		ns	
t f	Fall time		20		ns	
Φ E	Total Power Output		44		mW	IF = 350mA
I E	Radiant Intensity		4,3		mW/sr	IF = 350mA
2Φ 0,5	Full Emission Angle		125		deg.	ΦE = 50%
TK VF	Temp.Coeff. Of Forward Voltage		-0,01		mV/K	
T junction	LED-Junction Temperature			95	°C	
T Soldering	Soldering Temperature			240	°C	REFLOW SOLDER
T Operating	Operating Temperature	-30		85	°C	
T Storage	Storage Temperature	-40		85	°C	
R thJA	Thermal Resistance		2,3		K/W	
P tot	Total Power Dissipation			3500	mW	

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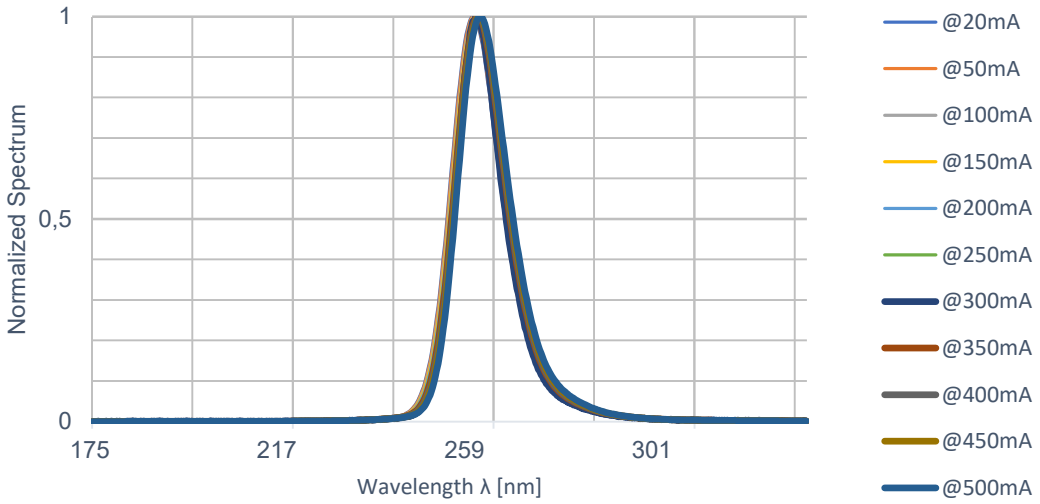
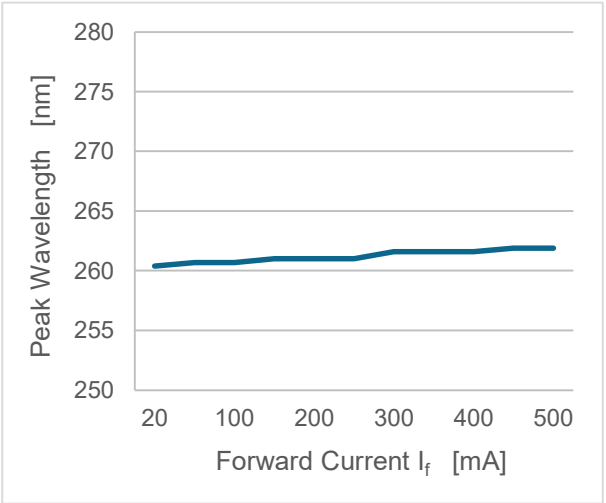
Relative Spectral Emission

@ $T_{ambient}$ = 25°C



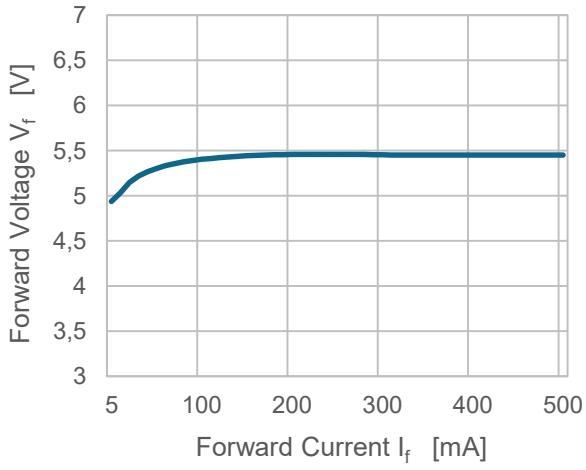
Fwd Current vs. Peak Wavelength

@$T_{ambient}$ = 25°C



Fwd Voltage vs. Fwd Current

@$T_{ambient}$ = 25°C



Pls. Contact us for more technical detail information !

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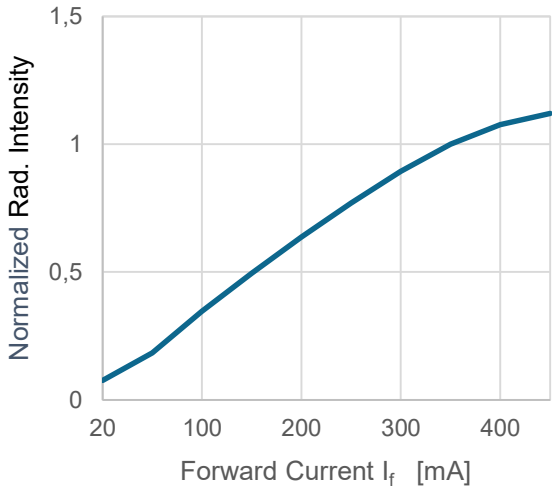
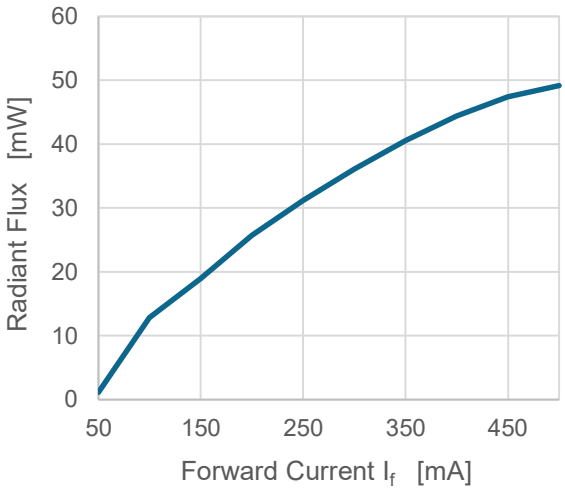
Fwd Current vs. Relative Radiant Intensity

@$T_{ambient}$ = 25°C



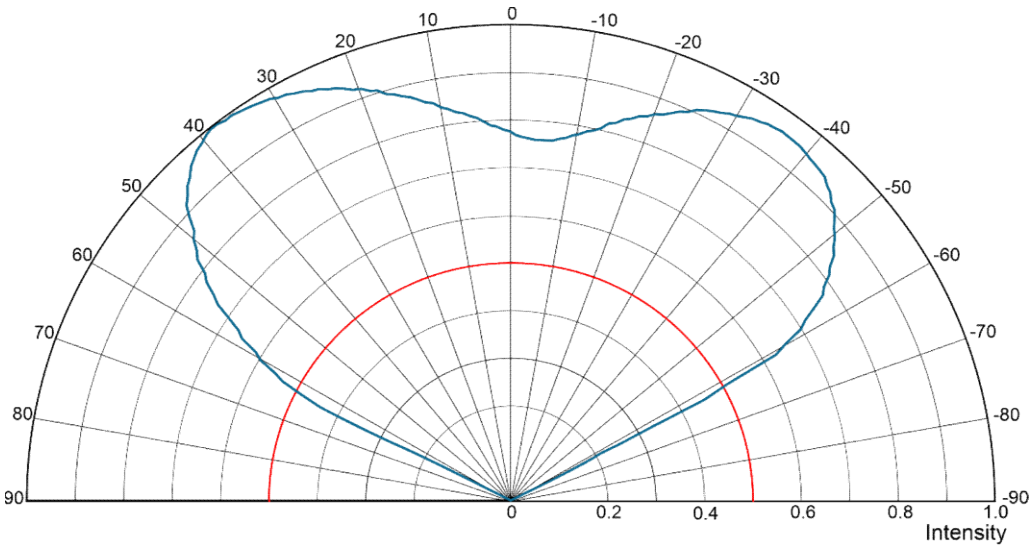
Fwd Current vs. Radiant Flux

@$T_{ambient}$ = 25°C



Relative Radiation Angle

@20mA @ $T_{ambient}$ = 25°C



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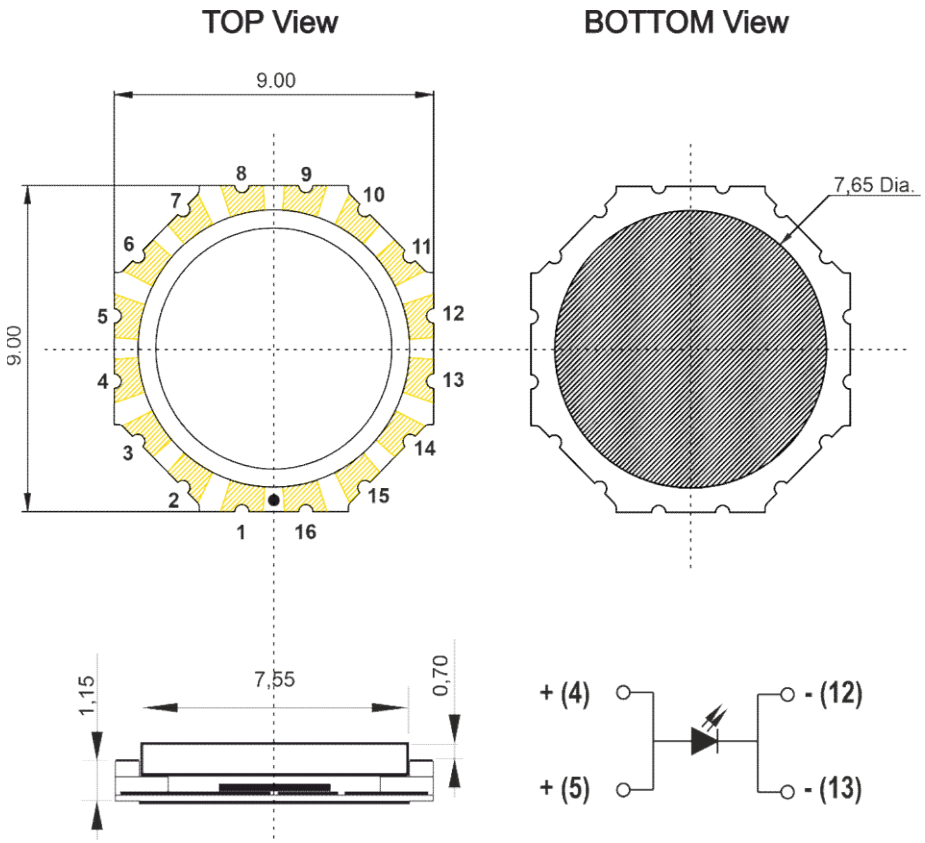
Order informations:

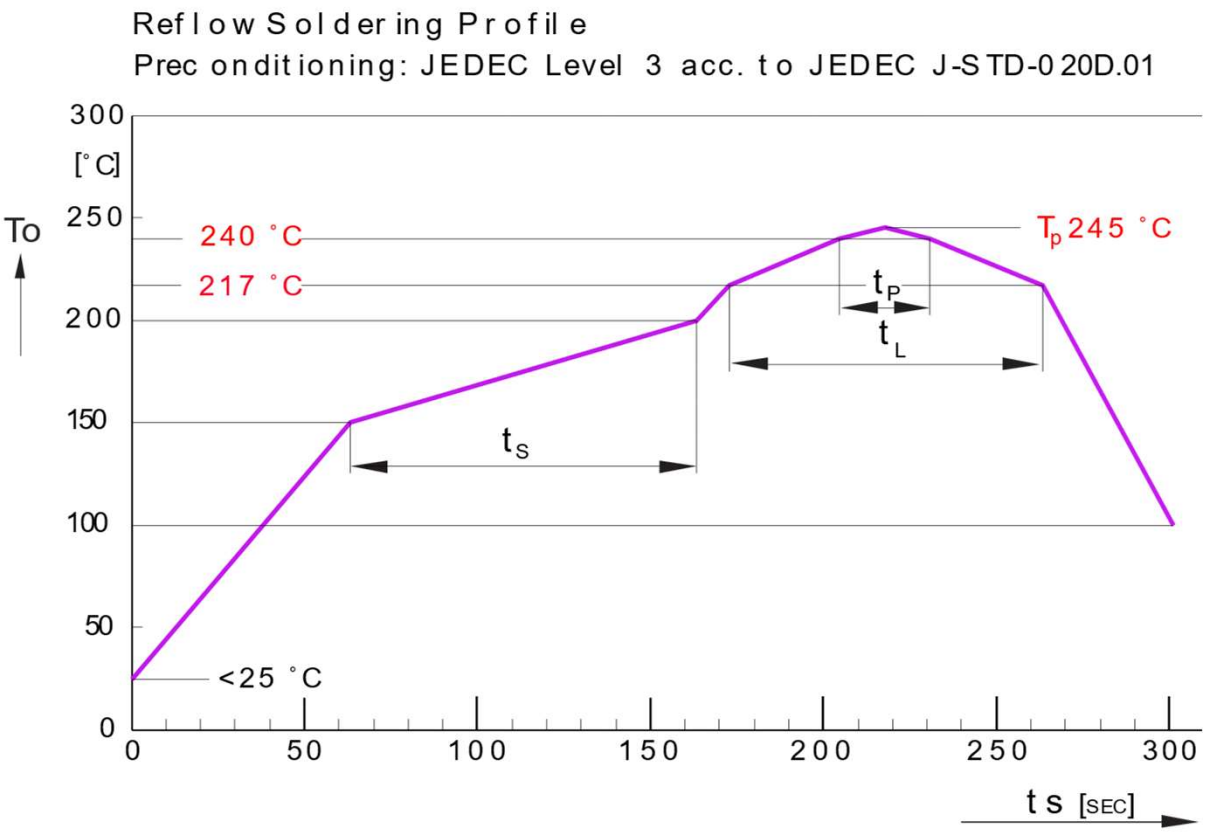
CQA97002UVN	Bulk (20pcs./Bag) /standard)

Mechanical Drawing



* The bottom side is not electrically conductive and can be glued or soldered directly to the heat sink.

Reflow Soldering Profil:



Profil Features		Pb-free (SnAgCu) Assembly			Unit
	Symbol	Minimum	Recommendation	Maximum	
Ramp-up rate to Preheat [1] 25 °C to 150 °C			2	3	K/sec
Time T_S T_{SMIN} to T_{SMAX}	T_S	60	100	120	sec
Ramp-up rate to Peak [1] T_{SMAX} to T_P			2	3	K/sec
Liquidus temperature	T_L		217		°C
Time above liquidus temperature	T_L		80	100	sec
Peak temperature	T_P		240	245/260[2]	°C
Time within 5 °C of the specified peaktemperature	T_{P-5K}	10	20	30	sec
Ramp down rate T_P to 100 °C			3	6	K/sec
Time 25 °C to T_P			300	480[2]	sec

All Temperatures refers to the Center of the Packages, Measured on the Top of component

(1) Slope Calculation DT/DT: DT max.5 sec. ; Fulfillment for the whole T-Range

(2) These maximum values are strong depend on the Reflow-Soldering Equipment and Application