

$I_V = 401 \text{ mcd}$, $V_F = 2.0 \text{ V}$
Surface Mount LED
SECU1911C-N20

Description

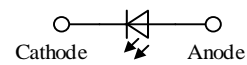
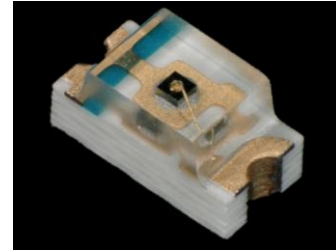
The SECU1911C-N20 is a surface mount orange LED.

Features

- Color -----Orange
- Luminous Intensity, I_V ----401 mcd (typ.) ($I_F = 20 \text{ mA}$)
- Forward Voltage, V_F ----- 2.0 V (typ.) ($I_F = 20 \text{ mA}$)
- Dominant Wavelength, λ_D ----- 592 nm
- Viewing Angle, $2\theta_{1/2}$ ----- 140 deg
- MSL 3
- RoHS Compliant
- Pb-free, Reflow Soldering
- High Reliability

Package

Dimensions (L × W × H): 1.6 × 0.8 × 1.1 mm



Not to scale

Applications

- Automotive Interior
- Switch
- Indicator

SECU1911C-N20

Absolute Maximum Ratings

Unless specifically noted, $T_A = 25\text{ }^\circ\text{C}$.

Parameter	Symbol	Conditions	Rating	Unit
Power Dissipation	P_D		72	mW
Forward Current	I_F		30	mA
Forward Current Reduction	ΔI_F	$T_A \geq 60\text{ }^\circ\text{C}$	-0.8	mA/ $^\circ\text{C}$
Pulse Forward Current	I_{FP}	Frequency = 1 kHz Pulse Width $\leq 100\text{ }\mu\text{s}$	70	mA
Reverse Voltage	V_R		5	V
Operating Temperature	T_{OP}		-40 to 85	$^\circ\text{C}$
Storage Temperature	T_{STG}		-40 to 100	$^\circ\text{C}$
Junction Temperature	T_J		100	$^\circ\text{C}$

Electrical / Optical Characteristics

Unless specifically noted, $T_A = 25\text{ }^\circ\text{C}$.

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 20\text{ mA}$	—	2.0	2.4	V
Reverse Current	I_R	$V_R = 5\text{ V}$	—	—	10	μA
Luminous Intensity	I_V	$I_F = 20\text{ mA}$	316	401	515	mcd
Dominant Wavelength	λ_D	$I_F = 20\text{ mA}$	589.0	592	594.0	nm
Viewing Angle	$2\theta_{1/2}$	$I_F = 20\text{ mA}$	—	140	—	deg
Thermal Resistance	$\theta_{(J-A)}$		—	340	—	$^\circ\text{C/W}$

Mechanical Characteristics

Parameter	Conditions	Min.	Typ.	Max.	Unit
Package Weight		—	0.00224	—	g

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Luminous Intensity Bins

The values have a tolerance of $\pm 20\%$.

Bin Number	Luminous Intensity Range	Unit
C	316 to 401	mcd
D	401 to 515	mcd

Wavelength Bins

The values have a tolerance of ± 2 nm.

Bin Number	Wavelength Range	Unit
Y	589.0 to 591.5	nm
R	591.5 to 594.0	nm

Derating Curves

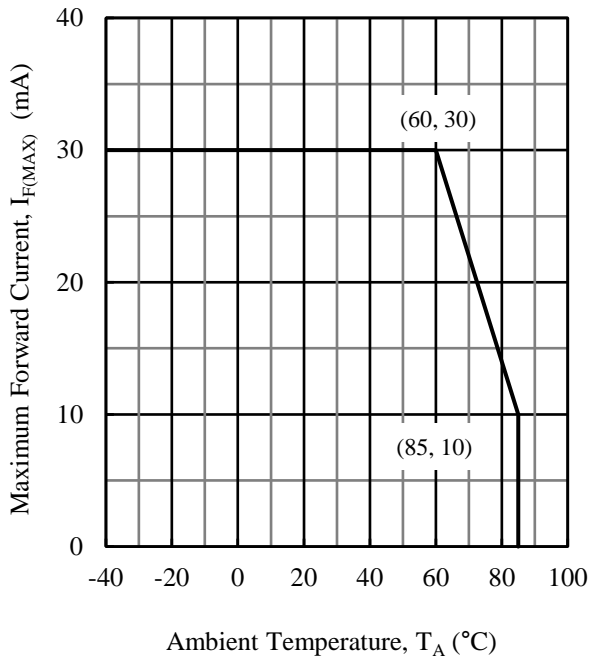


Figure 1. $I_{F(MAX)}$ vs. T_A

Characteristic Curves

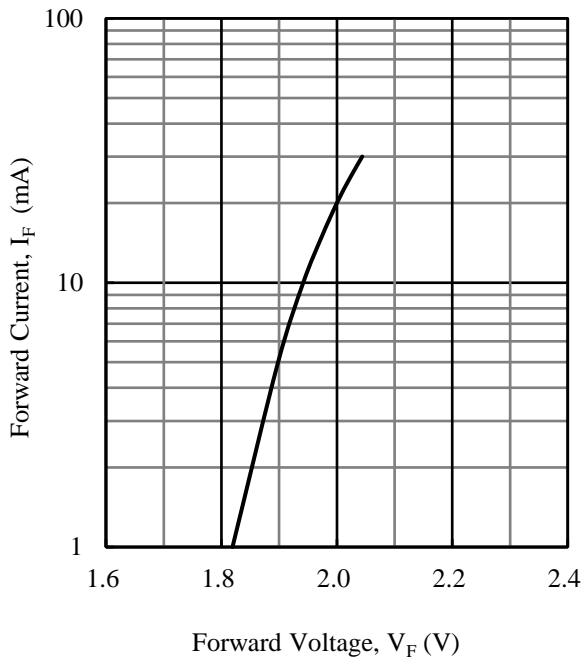


Figure 2. I_F vs. V_F

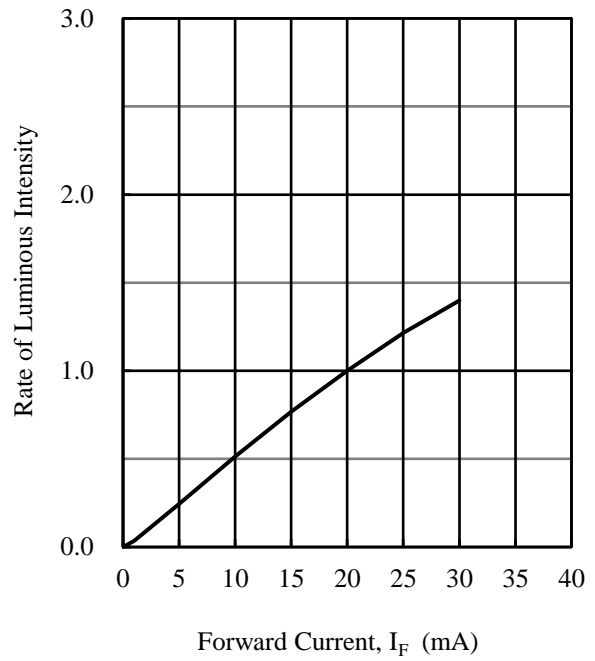


Figure 3. Rate of Luminous Intensity vs. I_F

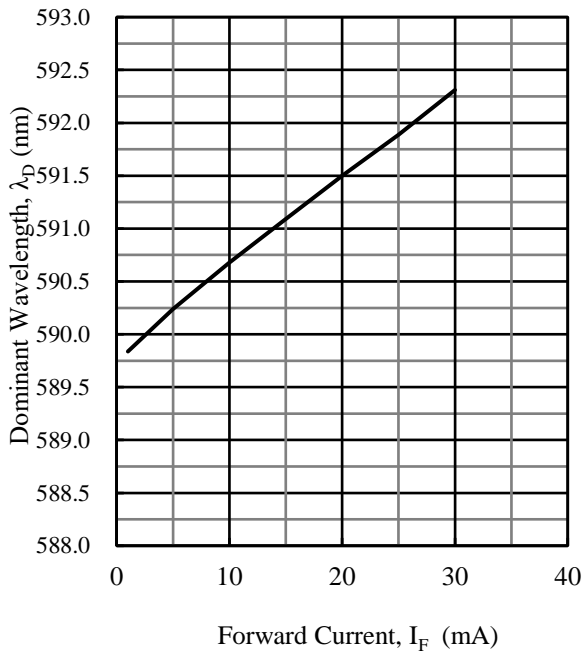


Figure 4. λ_D vs. I_F

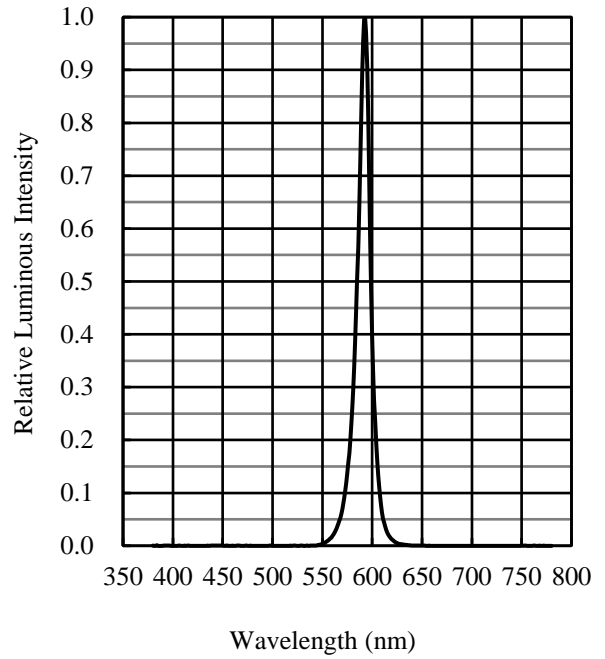


Figure 5. Spectrum

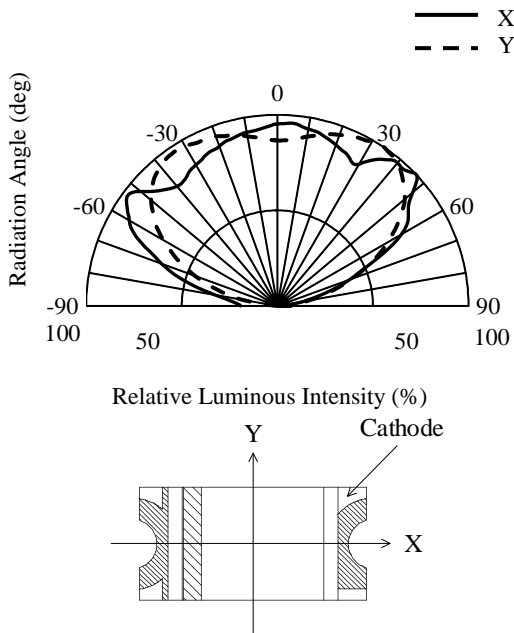
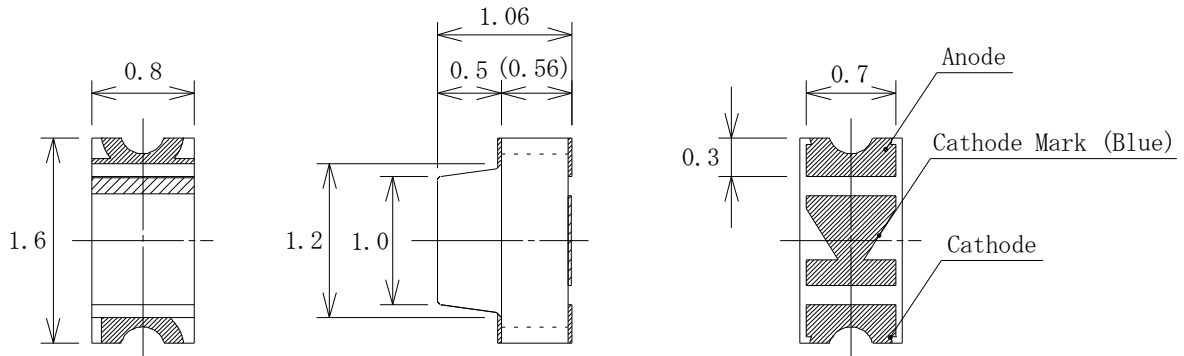


Figure 6. Directivity

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Physical Dimensions

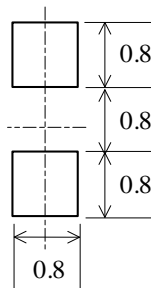
- Surface Mount ($1.6 \times 0.8 \times 1.1$ mm)



NOTES:

- Dimensions in millimeters
- Tolerance: ± 0.1 mm
- RoHS compliant
- MSL 3 (Moisture Sensitivity Level 3)

- Land Pattern Example



Unit: mm

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