

CQA97079EUG

545nm

GREEN LED

creativeled.com

Features

- * Thin film structure
- * High driving current
- * Most efficient heat dissipation as backside can be soldered directly to heat sink (non-conductive)
- * RoHs and REACH conform

Applications

- * Fluorescent spectroscopy
- * Phototherapy

Optical and Electrical Characteristics @Tambient =25°C

Symbol	Parameter	Min	Typ	Max	Unit	Test conditions
I_F	DC Forward current			700	mA	
I_{Peak}	Peak Forward current			1400	mA	$T_p < 10\mu\text{sec.}$; $T=1:100$; $R_{therm} < 100\text{K/W}$
V_F	Forward Voltage	2.1		2.5	V	$I_F = 100\text{mA}$
λ_{Peak}	Peak Wavelength		545		nm	$I_F = 20\text{mA}$
$\Delta\lambda_{0.5}$	Bandwidth of half power		34		nm	$I_F = 20\text{mA}$
t_f	Fall time			5	μs	
t_r	Rise time			10	μs	
mcd	Luminous Intensity				mcd	$I_F = 700\text{mA}$
I_e	Radiant Intensity				mW/sr	$I_F = 700\text{mA}$
A	Chip Size		1.33		mm ²	
$2\Phi_{0.5}$	Full Emission Angle		115		deg.	
TK_{VF}	Temp.Coeff. Of Forward Voltage		-3.33		mV/K	
$T_{Operating}$	Operating Temperature	-40		85	°C	
$T_{Storage}$	Storage Temperature	-40		85	°C	
$T_{Soldering}$	Soldering Temperature			245	°C	Reflow
Q_{j-PIN}	Thermal Resistance		2.3		K/W	
P_{tot}	Total Power Dissipation @ 20mA			1750	mW	

* values only for information

Order information

CQA97079EUG

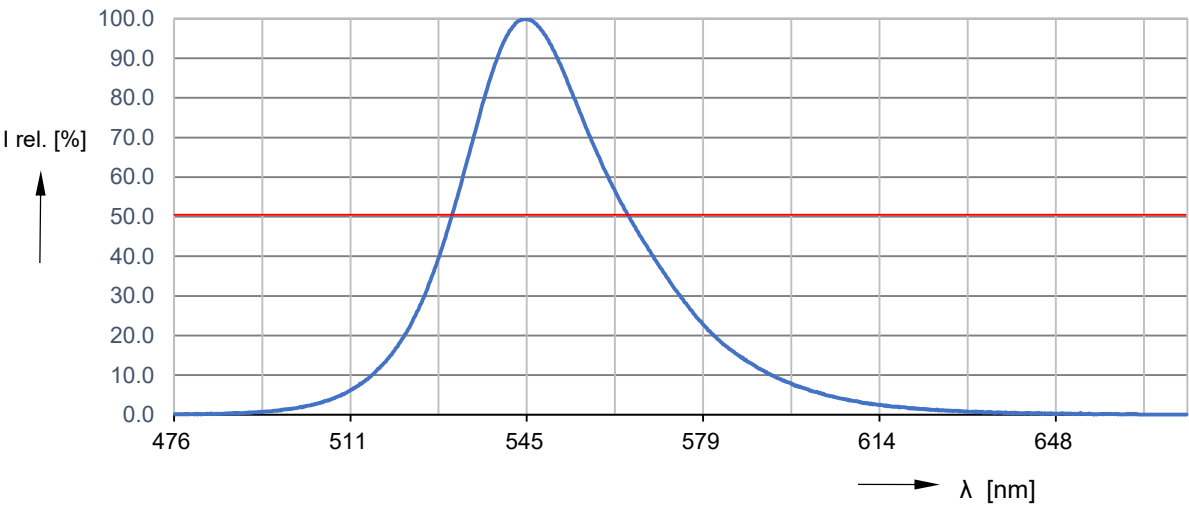
Bulk (20pcs./Bag) / standard

Pls. Contact us for more technical detail information !

CREATIVE LED GMBH reserves the right to make changes at any time in order to improve design and to supply the best product possible, contact us for latest device specification sheets before using.

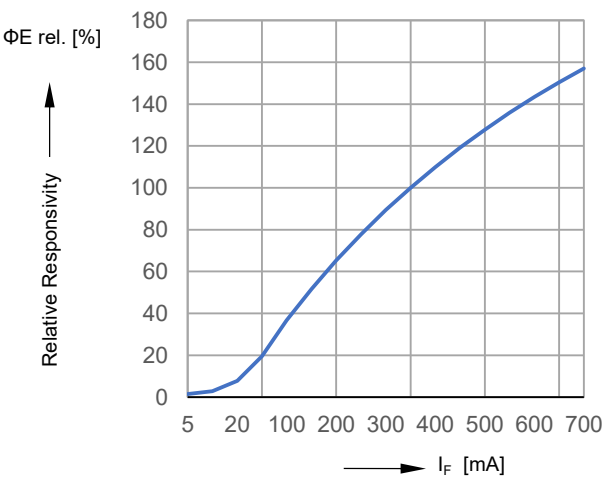
Relative Spectral Emission

@100mA @ T_{ambient} = 25°C



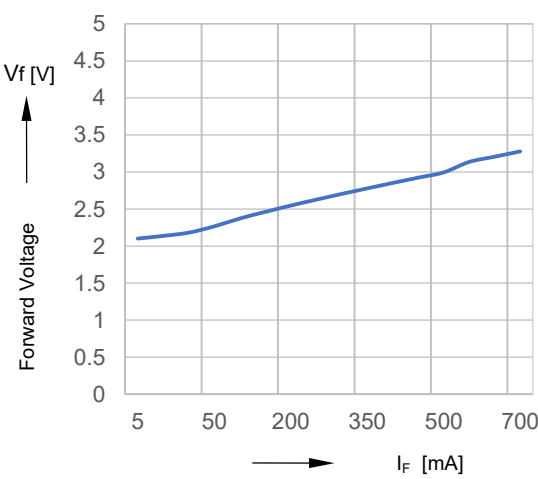
Relative Radiant Flux

@ T_{ambient} = 25°C



Forward Voltage

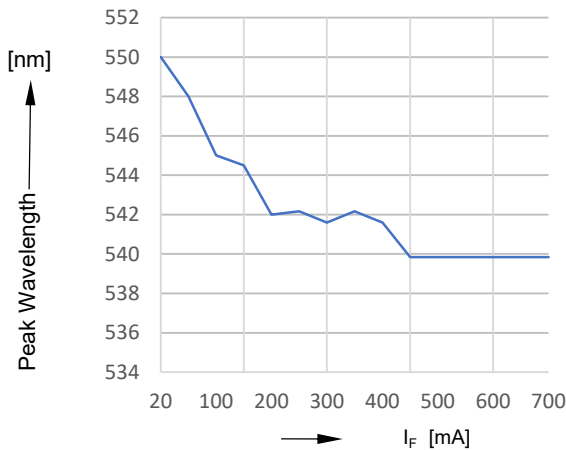
@ T_{ambient} = 25°C



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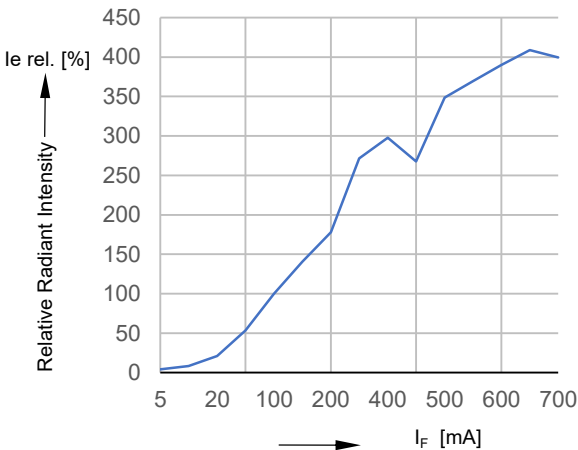
Fwd Current vs. Peak Wavelength

@T_{ambient} = 25°C



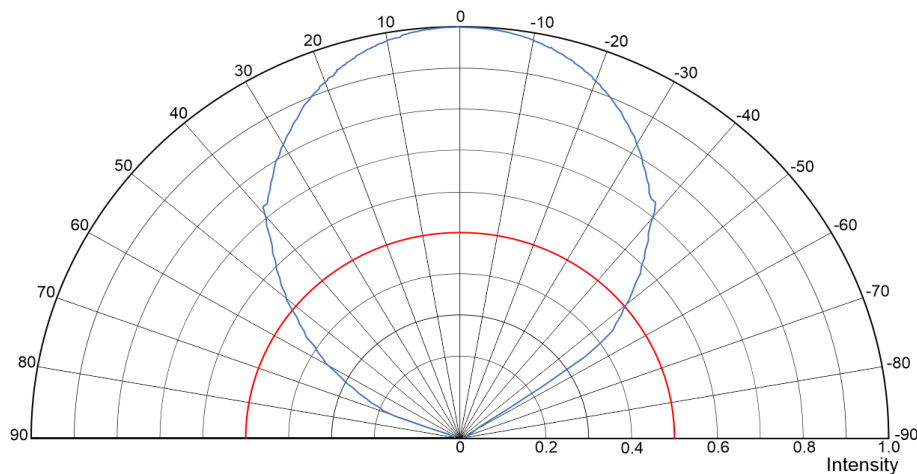
Relative Radiant Intensity

@ T_{ambient} = 25°C



Relative Radiation Angle

@20mA @ T_{ambient} = 25°C



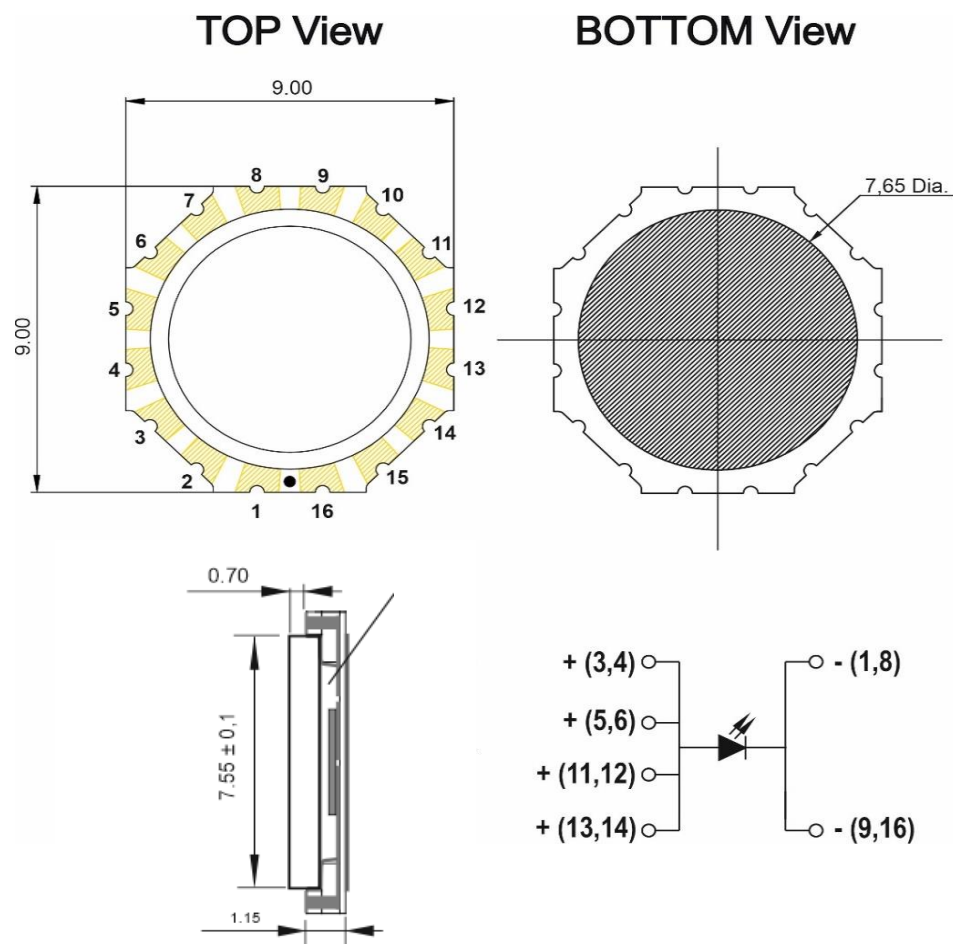
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Mechanical Drawing

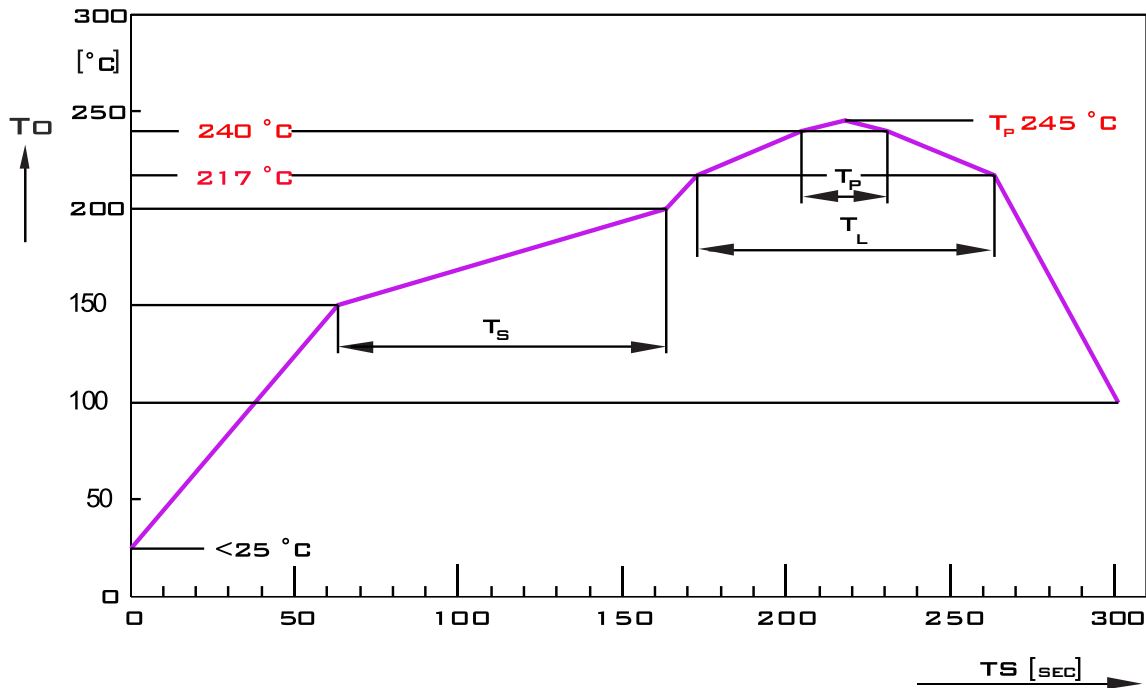


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Reflow Soldering Profile

REFLOW SOLDERING PROFILE

PRECONDITIONING: JEDEC LEVEL 3 ACC. TO JEDEC J-STD-020D.01



PROFIL FEATURES	PB-FREE (SNAAGCU) 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 _S MIN TO T _S MAX	T _S	60	100	120	SEC
RAMP-UP RATE TO PEAK ⁽¹⁾ T _S MAX 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 PEAK TEMPERATURE	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

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