

Product Specification**CQM25592BCP****850nm****Infrared LED**

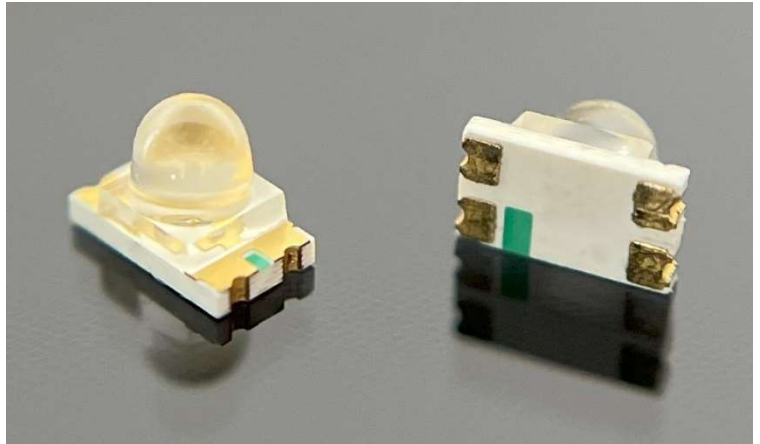
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Features

- * Standard design LED for general purpose
Based on GaAlAs
- * Fast switching time : typ. < 30ns
- * High power for SMD case with 13° full angle
- * Water-clear package style
- * RoHS and REACH conform

Applications

IR-Flash-Light
 Medical Instruments
 Light Interrupter and switches
 Oper-Air communication / IrDa

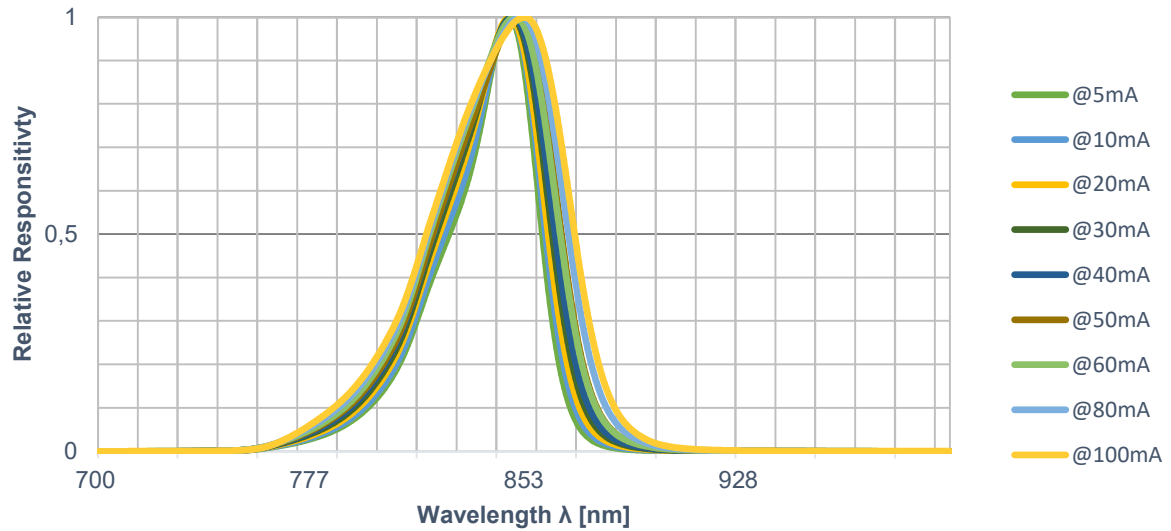
**Optical and Electrical Characteristics @Tambient =25°C**

Symbol	Parameter	MIN	Typ	MAX	UNIT	Test conditions
I F	DC Forward current			100	mA	
I Peak	Peak Forward current			800	mA	Tp < 10μsec. ; T=1:100 ; Rtherm < 100K/W
V F	Forward Voltage	1,3		2,1	V	IF = 100mA
V R	Reverse Voltage	5,0			V	Irev = 10μA
λ Peak	Peak Wavelength	545	850	855	nm	IF = 100mA
Δλ 0,5	Bandwidth of half power	30	40		nm	IF = 350mA
t r	Rise time		30		ns	
t f	Fall time		30		ns	
Φ E	Total Power Output	30			mW	IF = 60mA
I E	Radiant Intensity	80	130		mW/sr	IF = 60mA
2Φ 0,5	Full Emission Angle		13		deg.	ΦE = 50%
TK VF	Temp.Coeff. Of Forward Voltage		-2		mV/K	
TK F	Temp. Coeff. Of Radiant Power		-0,5		%/K	
T junction	LED-Junction Temperature		110	115	°C	
T Soldering	Soldering Temperature			240	°C	REFLOW SOLDER
T Operating	Operating Temperature	-25		85	°C	
T Storage	Storage Temperature	-25		85	°C	
R thJA	Thermal Resistance		450		K/W	
P tot	Total Power Dissipation			210	mW	derate above 45°C 2,5mW/K

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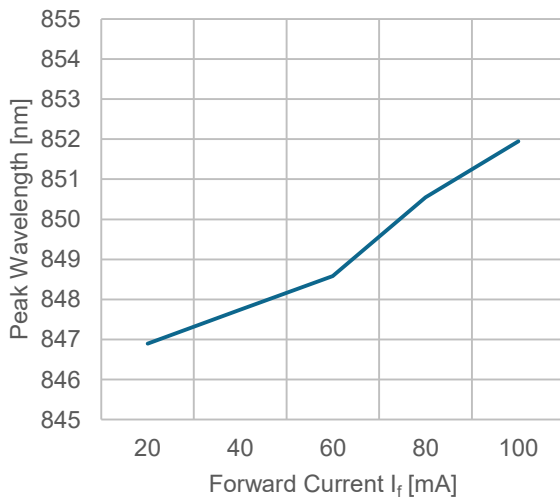
Relative Spectral Emission

@ $T_{\text{ambient}} = 25^{\circ}\text{C}$



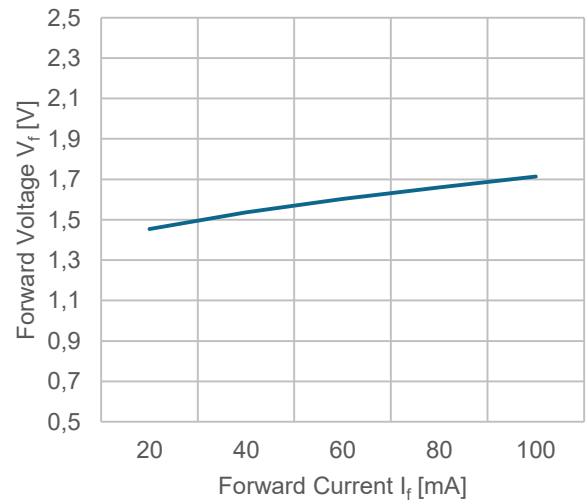
Fwd Current vs. Peak Wavelength

@ $T_{\text{ambient}} = 25^{\circ}\text{C}$



Fwd Voltage vs. Fwd Current

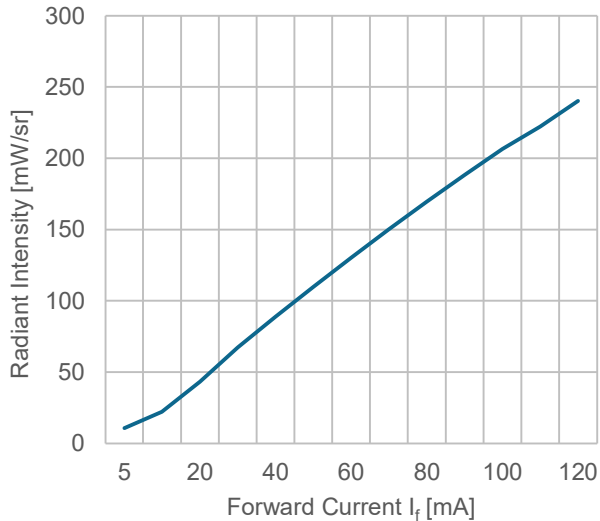
@ $T_{\text{ambient}} = 25^{\circ}\text{C}$



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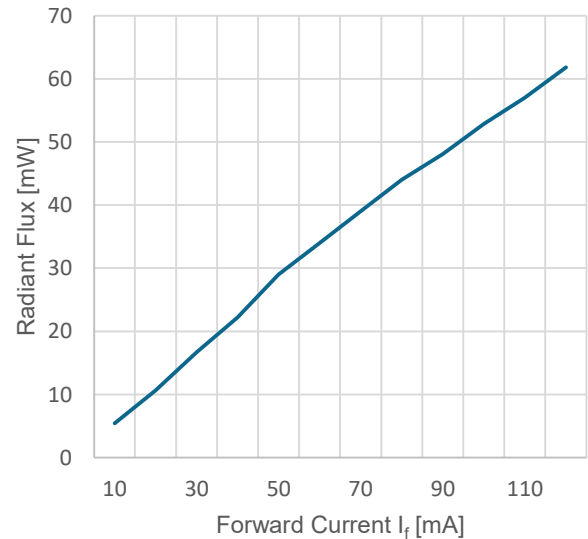
Fwd Current vs. Relative Radiant Intensity

@T_{ambient} = 25°C



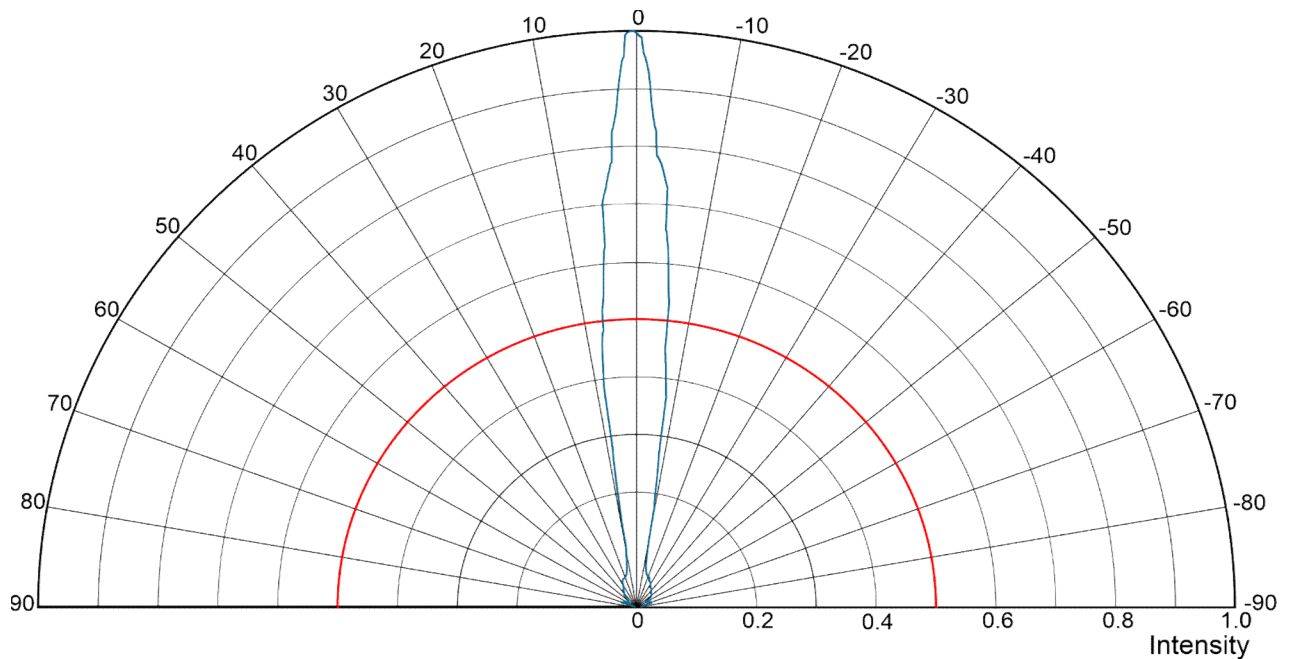
Fwd Current vs. Radiant Flux

@T_{ambient} = 25°C



Relative Radiation Angle

@20mA @ T_{ambient} = 25°C



Pls. Contact us for more technical detail information !

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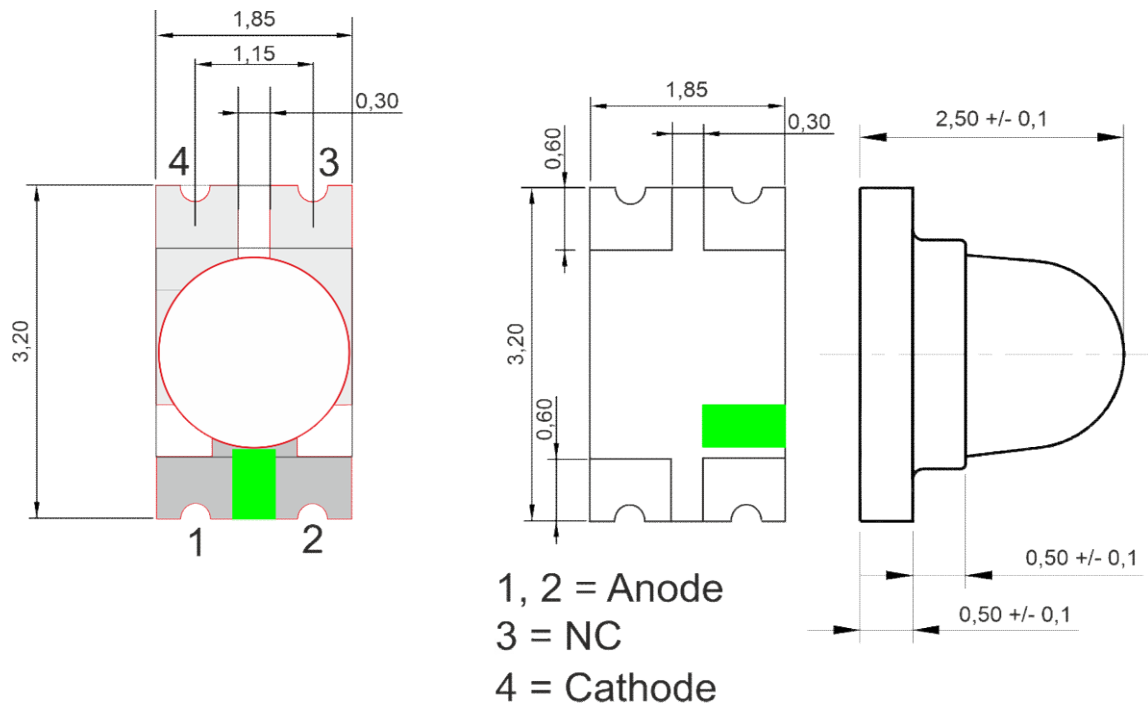
Order informations:

CQM25592BCP-TR

Taped in Reel (1500pcs/reel; lens top in the tape)

Tape : Cathode is undepend on the polarity mark on the side of transportation lane

Mechanical Drawing



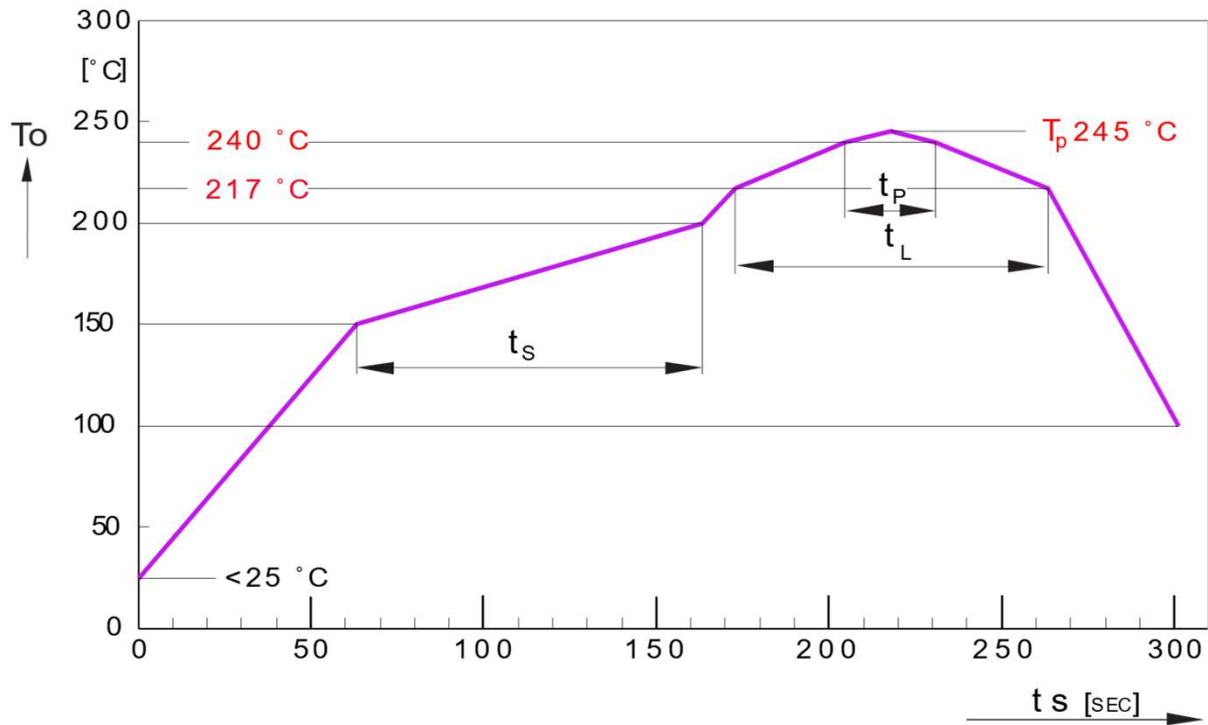
CREATIVE LED GMBH reserves the right to make changes at any time in order to improve design and to supply the best product possible, contact us for latest device specification sheets before using.

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Reflow Soldering Profil:

Reflow Soldering Profile

Prec onditioning: JEDEC Level 3 acc. to JEDEC J-STD-020D.01



PROFIL FEATURES	SYMBOL	Pb-FREE (SNAAGCU) ASSEMBLY			UNIT
		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 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

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