Product Specification

CQR67585TBLD 870nm

IR LED Edged Corner Bonded

creativeled.com

Features

* Verry Narrow Radiation of 8° full angle
* Based on High Power GaAsAl substrat
* Fast switching time : typ. < 20ns
* Edge Corner Chip
* High power and efficiency
* Reflow-soldering
* RoHs and REACH conform

Applications

Cat-2 Safety Light Guard
IR-Flash-Lights
Medical Instruments
Light interrupter and switches

*** 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			150	mA	
I Peak	Peak Forward current			500	mA	Tp < 10µsec. ; T=1:100 ; Rtherm < 100K/W
V F	Forward Voltage		1.6	1.9	V	IF = 20mA
λ Peak	Peak Wavelength	860	870		nm	IF = 20mA
Δλ 0.5	Bandwide of half power			40	nm	IF = 20mA
t r	Rise time		20		ns	
t f	Fall time		20		ns	
Φ E	Total Power Output		54		mW	IF = 100mA
I E	Radiant Intensity		200		mW/sr	IF = 100mA
2Φ 0.5	Full Emission Angle		8		deg.	ΦE = 50%
A	Chip size		0.132		mm²	
TK VF	Temp.Coeff. Of Forward Voltage		-2		mV/K	
T junction	LED-Junction Temperature			105	°C	
T Soldering	Soldering Temperature			240	°C	REFLOW SOLDER
T Operating	Operating Temperature	-40		85	°C	
T Storage	Storage Temperature	-40		85	°C	
R thJA	Thermal Resistance		450		K/W	
P tot	Total Power Dissipation			285	mW	

Order informations:

CQR67585TBLD Bulk (1000pcs./Bag) /standard)

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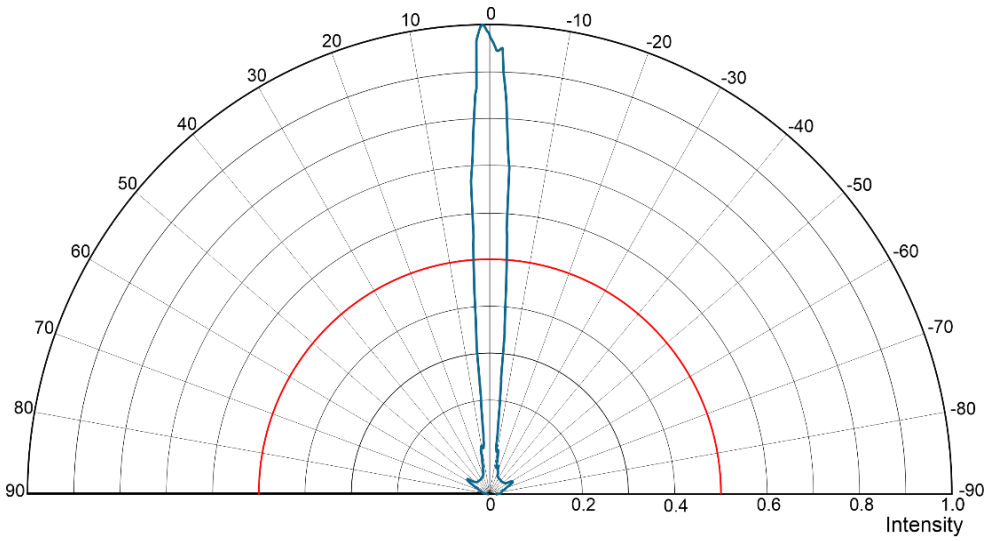
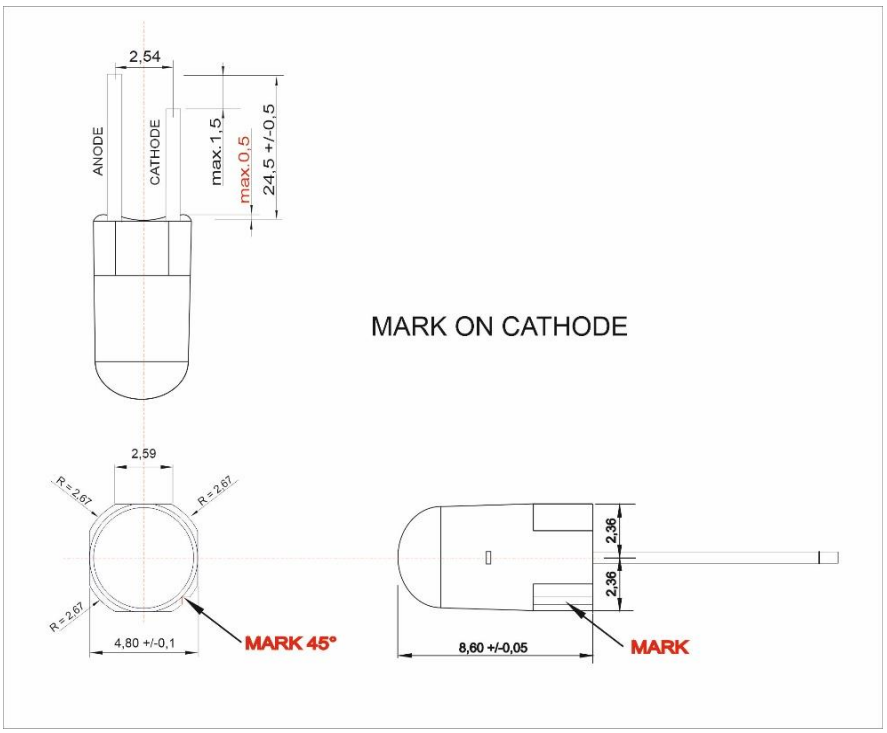
Relative Radiation Angle

@20mA @ $T_{ambient}$ = 25°C



Mechanical Drawing



Pls. Contact us for more technical detail information !

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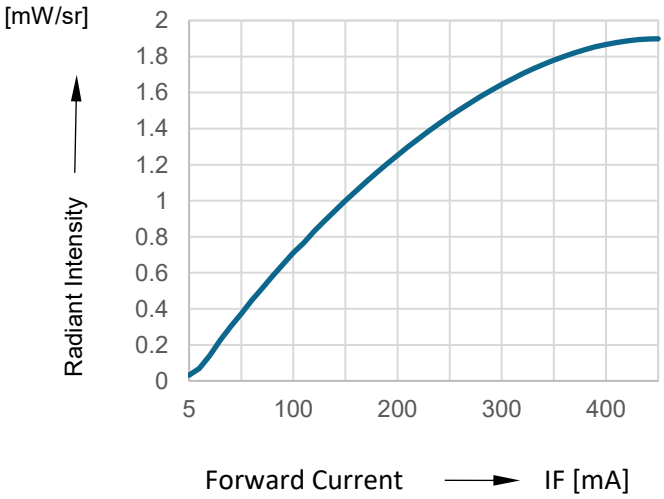
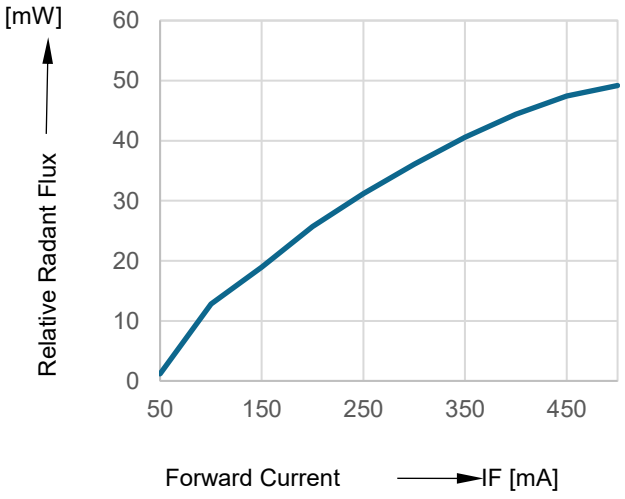
Fwd Current vs. Relative Radiant Intensity

@$T_{ambient}$ = 25°C



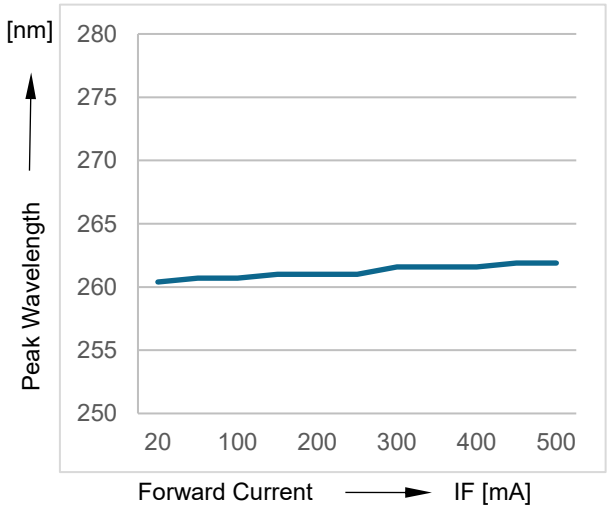
Fwd Current vs. Radiant Flux

@$T_{ambient}$ = 25°C



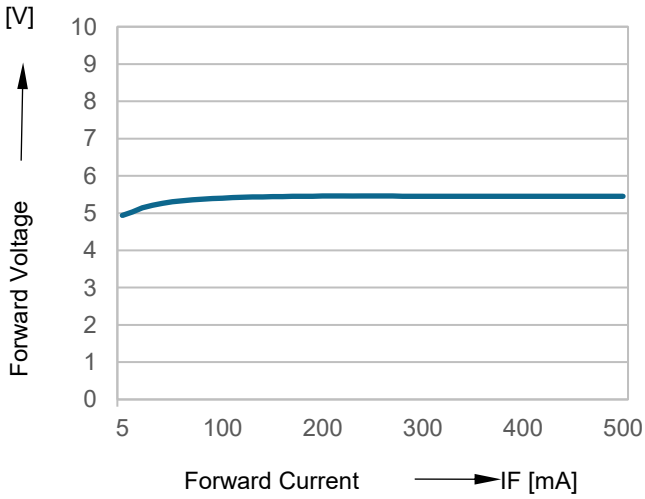
Fwd Current vs. Peak Wavelength

@$T_{ambient}$ = 25°C



Fwd Voltage vs. Fwd Current

@$T_{ambient}$ = 25°C



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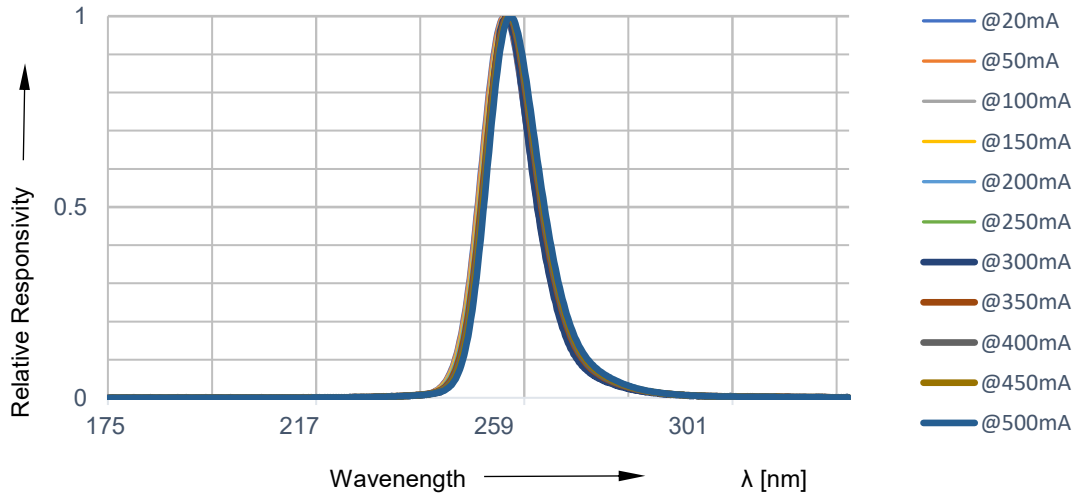
Relative Spectral Emission

@ $T_{ambient}$ = 25°C



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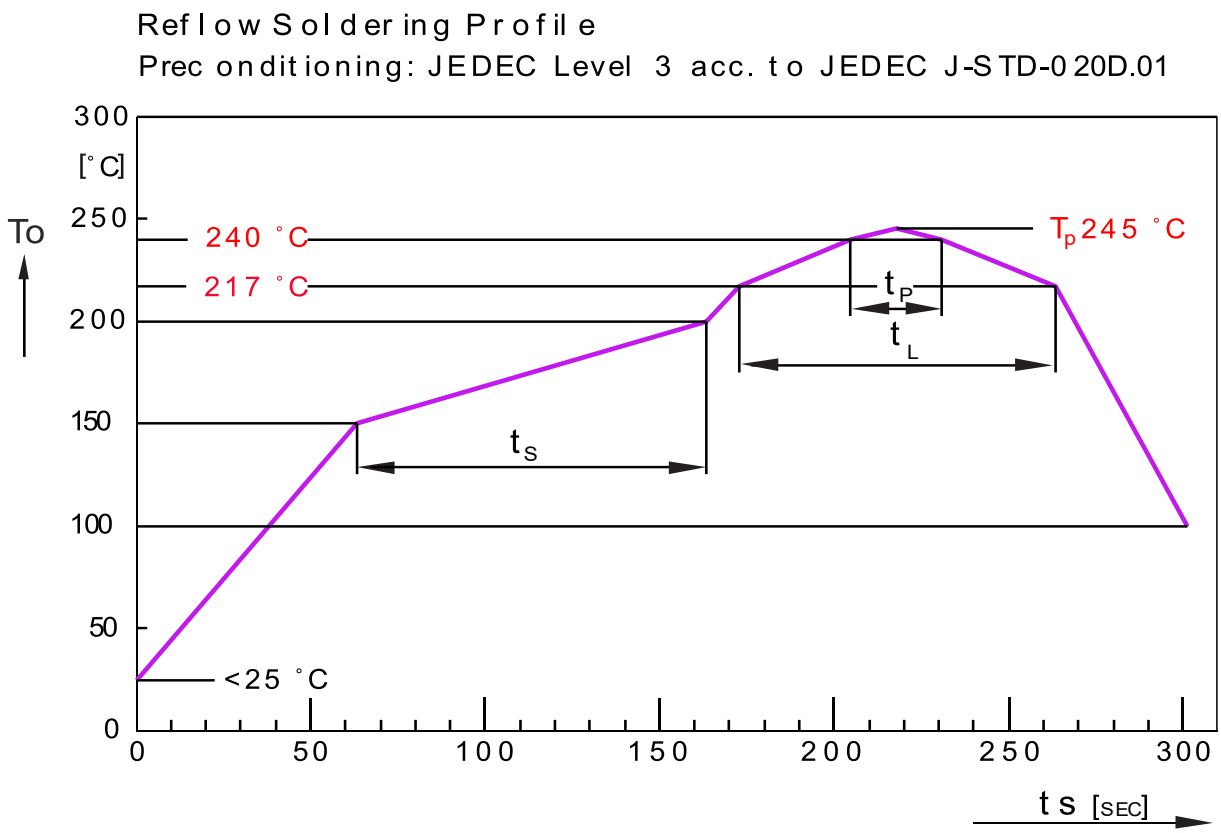
Reflow Soldering Profil:



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