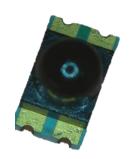


Preliminary Product Specification

CSM836080FB 9° Phototransistor

- *1.80mm Phototransistor with separate base for general purpose
- * Mountable in row with -mm distance
- * Current Gain selected
- * Daylight filtered black housing
- * Mechanical matched with CQR- LED-Series



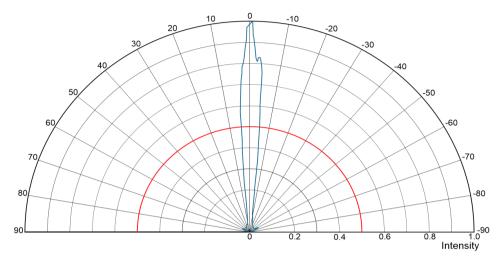
Optical and Electrical Characteristics @Tambient =25°C

Symbol	Parameter	MIN	Тур	MAX	UNIT	Test conditions	
I _{Light}	Light Current BIN A	2.5		3.5	mA	Ee = 0,5mW/cm² @940nm ; Vr=10V	
I _{Light}	Light Current BIN A	3.51		5	mA		
I _{Light}	Light Current BIN A	5.01			mA		
I _{CEO}	Collector Dark Current			100	nA	Ee = 0 mW/cm² ; Vr=10V	
V _{(BR)CEO}	Collector Emitter Breakdown Voltage	30			V	Ic = 100μA ; H = 0mW/cm²	
V _{(BR)ECO}	Emitter Collector Breakdown Voltage	5			V	Ic = 100μA ; H = 0mW/cm²	
V _{CEsat}	Collector-Emitter Saturation Voltage			0.3	V	lb = 100μA lc = 2mA	
λ _{peak}	Wavelength of Peak Sensitivity		940		nm	max. sensitivity	
λ _{0.5}	Range of Spectral Bandwidth	720		1050	nm	I = 10%, typical	
2Φ _{0.5}	Full Response Angle	18		20	deg.	ΦE = 50%	
ß	Current Gain	900		1400		Vce = 5 V ; Ic = 2mA	
Α	Active Area		0.1155		mm²		
C J	Junction Capacity		6		pF	VR=0V ; f=1MHz ; Ev=0Lux	
T _{Operating}	Operating Temperature	-25		85	°C		
T _{Storage}	Storage Temperature	-25		100	°C		
T _{Soldering}	Soldering Temperature			260	°C	Iron Soldering; 5mm from case @ max 5 se	
R _{thJA}	Thermal Resistance		450		K/W		
P tot	Total Power Dissipation			43.25	mW	Tamb 25°C	

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 Responsitivity Angle:

@ T_{ambient} = 25°C



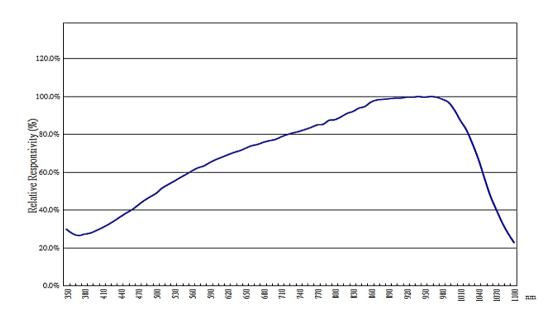
Order informations:

Phototransistor

CSM836080FB

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

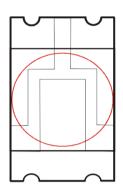
Relative Sensitiviy vs. Wavelength:



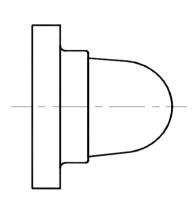
24/10/2025

CSM836080FB

Mechanical Drawing:



1 2

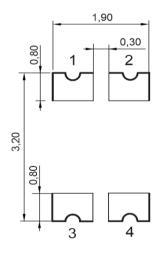


PIN 1 : EMITTER PIN 2 : BASE

PIN 3; 4: COLLECTOR

Pls. Contact us for more technical detail information!

PCB drawing:



PIN 1 : EMITTER PIN 2 : BASE

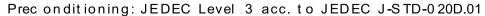
PIN 3; 4: COLLECTOR

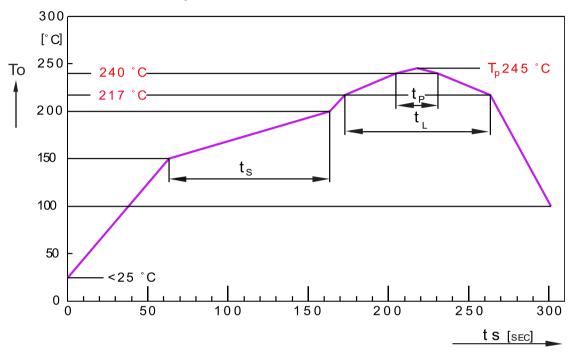
Note to Customer:

If you have any recommended modifications or adjustments to the PCB footprint or pin configuration, please feel free to share your suggestions.

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Reflow Soldering Profile:





PROFIL FEATURES		PB-FI	UNIT		
PRUFIL FEATURES	SYMBOL	мінімим	RECOMMENDATION	MAXIMUM	UNII
RAMP-UP RATE TO PREHEAT (1) 25 °C TO 150 °C			2	В	K/SEC
TIME T _S T _{SMIN} TO T _{SMAX}	Tg	60	100	120	SEC
RAMP-UP RATE TO PEAK (1) T _{BMAX} TO T _P			z	Ω	K/SEC
LIQUDUS TEMPERATURE	TL		217		°C
TIME ABOVE LIQUIDUS TEMPERATURE	TL		80	100	SEC
PEAK TEMPERATURE	Tp		240	245/260(2)	°C
TIME WITHIN 5 °C OF THE SPECIFIED PEAKTEMPERATURE	T _{P-SK}	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

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⁽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