CREATIVE GMBH LED

Preliminary Product Specification

Phototransistor 25° CSR38431PEK

* 4,8mm Phototransistor with separate Base for general purpose
* Mountable in row with 5mm distance
* Response Angle of typ. 25 degree
* Daylight filtered black housing
* Mechanical matched with CQR- LED-Serie
* SMT-Version CSS38431PEK
* Current Gain selected

Optical and Electrical Characteristics @Tambient =25°C

Symbol	Parameter	MIN	Typ	MAX	UNIT	Test conditions
I_{Light}	Collector Light Current	2,3	4		mA	Ee = 0,5mW/cm² @940nm ; Vr=10V
I_{CEO}	Collector Dark Current		2		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	Ib = 100µA ; H = 0mW/cm²
λ_{peak}	Wavelength of Peak Sensitivity		860		nm	max. sensitivity
$\lambda_{0,5}$	Range of Spectral Bandwidth	700		1150	nm	I = 10%, typical
$2\Phi_{0,5}$	Full Response Angle		25		deg.	ΦE = 50%
ß	Current Gain	500		1000		Ee = 0,5mW/cm² @940nm ; Vr=10V
A	Active Array		0,146		mm²	
t_f	Fall Time		15		µS	Vcc = 5V ; Ic = 1mA ; RL = 1KΩ
t_r	Rise Time		15		µS	Vcc = 5V ; Ic = 1mA ; RL = 1KΩ
$T_{Operating}$	Operating Temperature	-25		85	°C	
$T_{Storage}$	Storage Temperature	-25		85	°C	
$T_{Soldering}$	Soldering Temperature			260	°C	Iron Soldering; 5mm from case @ max 5 sec.
R_{thJA}	Thermal Resistance		450		K/W	
P_{tot}	Total Power Dissipation			100	mW	Tamb 25°C

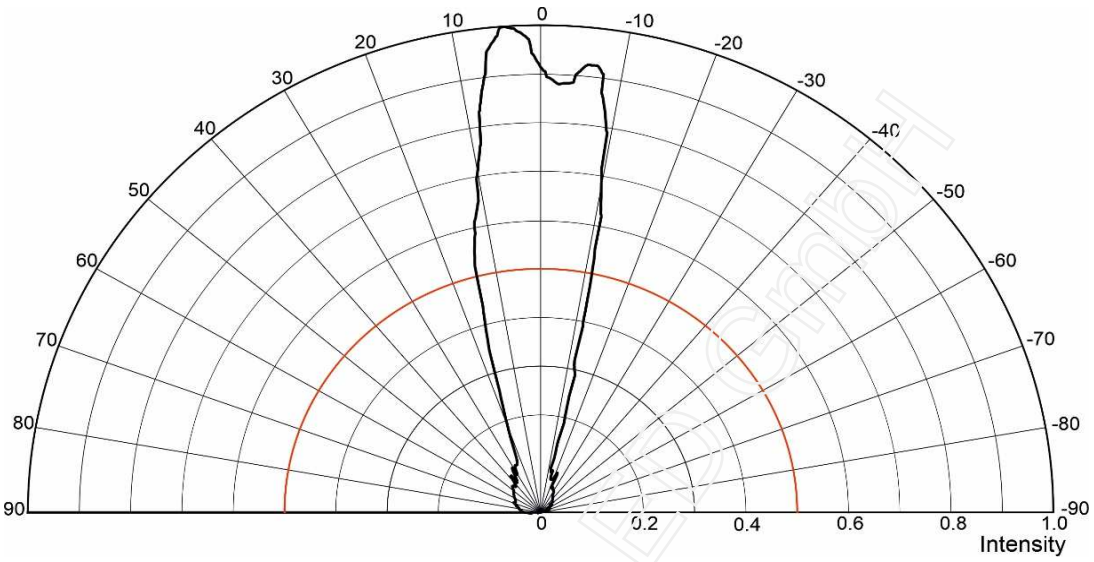
Order informations:

CSR38431PEK	Bulk
CSR38431PEK-TC	Bended according to customer specifications (on request)
CSR38431PEK-TR	Tape & Reel (1000pcs/reel) on request

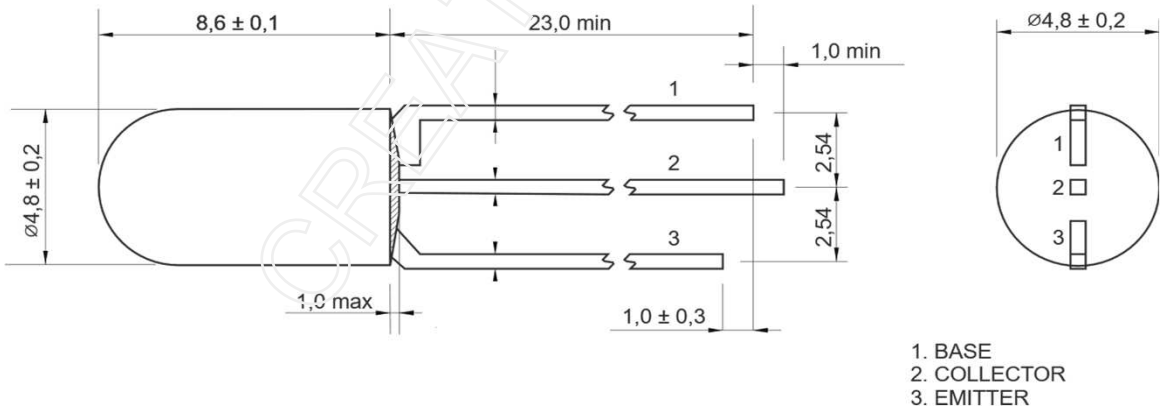
CSR38431PEK

Relative Responsitivity Angle

@ $T_{ambient}$ = 25°C



Mechanical Drawing



1. BASE
2. COLLECTOR
3. EMITTER

Pls. Contact us for more technical detail information !