CREATIVE GMBH LED

Preliminary Product Specification

PIN-Photodiode THD 7° CSR67851PBN

* PIN-Photodiode for general purpose
  Based on Silicon- Photodiode
* Mountable in row with 5mm distance
* **Verry narrow Response Angle of typ. 7°**
* Daylight filtered black housing
* Mechanical matched with CQR65 LED-serie
* SMT-Version CSS67851PBN

Optical and Electrical Characteristics @Tambient =25°C

Symbol	Parameter	MIN	Typ	MAX	UNIT	Test conditions
I_{Light}	Reverse Light Current	6	10		µA	Ee = 0,5mW/cm² @940nm ; Vr=10V
I_{Dark}	Reverse Dark Current		1	4	nA	Ee = 0 mW/cm² ; Vr=10V
I_{Short}	Short Circut Current		11		µA	Ee = 1mW/cm² @940nm ; Vr=10V
V_R	Reverse Voltage	40			V	
$V_{forward}$	Reverse Breakdown Voltage	40			V	IR = 100µA ; Ee = 0mW/cm²
V_{OC}	Open Circut Voltage		410		mV	Ee = 5mW/cm² @940nm
λ_{peak}	Wavelength of Peak Sensitivity		860		nm	max. sensitivity
$\lambda_{0,5}$	Range of Spectral Bandwidth	720		1100	nm	I = 10%, typical
$2\Phi_{0,5}$	Full Response Angle		7		deg.	ΦE = 50%
A	Active Array		0,0314		mm²	
t_f	Fall Time		10		µS	VR = 10V ; RL = 1KΩ
t_r	Rise Time		10		µS	VR = 10V ; RL = 1KΩ
C_J	Junction Capacity		3	6	pF	VR = 5V ; f = 1Mhz; Ee = 0mW/cm²
$T_{Operating}$	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 sec.
R_{thJA}	Thermal Resistance		450		K/W	
P_{tot}	Total Power Dissipation			100	mW	Tamb 25°C

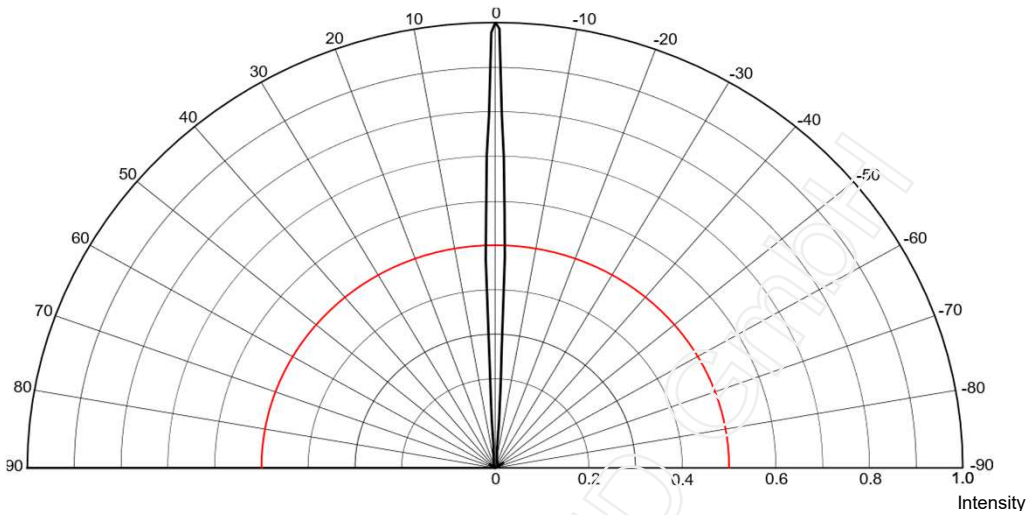
Order informations:

CSR67851PBN	Bulk
CSR67851PBN-TR	Tape & Reel (1000pcs/reel) on request

CSR67851PBN

Relative Responsitivity Angle

@ $T_{ambient}$ = 25°C



Mechanical Drawing