

PIN-Photodiode THD**25°****CSR57881PEH**

- * PIN-Photodiode for general purpose
Based on Silicon- Photodiode
- * Mountable in row with 5mm distance
- * **Response Angle of typ. 25°
with wide tip, $2\Phi_{0,9} \approx 15$ degree typ.**
- * High responsivity with typ. 0,55 A/W
- * Daylight filtered black housing
- * Mechanical matched with CQR5- LED-serie
- * Bended version on request
SMT-Version CSS57881PEH

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

Symbol	Parameter	MIN	Typ	MAX	UNIT	Test conditions
I_{Light}	Reverse Light Current	50	80		μA	$E_e = 1\text{mW}/\text{cm}^2$ @940nm ; $V_r=10\text{V}$
I_{Dark}	Reverse Dark Current		2	5	nA	$E_e = 0\text{mW}/\text{cm}^2$; $V_r=10\text{V}$
I_{Short}	Short Circuit Current		12		μA	$E_e = 1\text{mW}/\text{cm}^2$ @940nm ; $V_r=10\text{V}$
V_R	Reverse Voltage	25			V	
V_{forward}	Reverse Breakdown Voltage	25			V	$I_R = 100\mu\text{A}$; $E_e = 0\text{mW}/\text{cm}^2$
V_{OC}	Open Circuit Voltage		410		mV	$E_e = 5\text{mW}/\text{cm}^2$ @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		25		deg.	$\Phi_E = 50\%$
A	Active Array		1,55		mm^2	
t_f	Fall Time		10		μS	$V_R = 10\text{V}$; $R_L = 1\text{K}\Omega$
t_r	Rise Time		10		μS	$V_R = 10\text{V}$; $R_L = 1\text{K}\Omega$
C_J	Junction Capacity		4	6	pF	$V_R = 5\text{V}$; $f = 1\text{Mhz}$; $E_e = 0\text{mW}/\text{cm}^2$
$T_{\text{Operating}}$	Operating Temperature	-40		85	$^{\circ}\text{C}$	
T_{Storage}	Storage Temperature	-40		100	$^{\circ}\text{C}$	
$T_{\text{Soldering}}$	Soldering Temperature			260	$^{\circ}\text{C}$	Iron Soldering; 5mm from case @ max 5 sec.
R_{thJA}	Thermal Resistance		450		K/W	
P_{tot}	Total Power Dissipation			100	mW	$T_{\text{amb}} 25^{\circ}\text{C}$

Order informations:

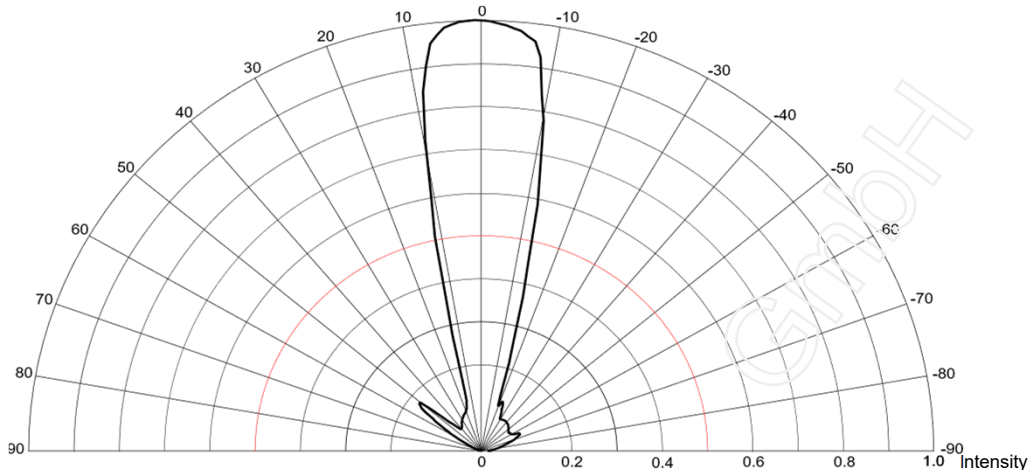
CSR57881PEH Bulk
 CSR57881PEH-TR Tape & Reel (1500pcs/reel) on request
 CSR57881PEH-TC Bended according to customer specifications (on request)

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.

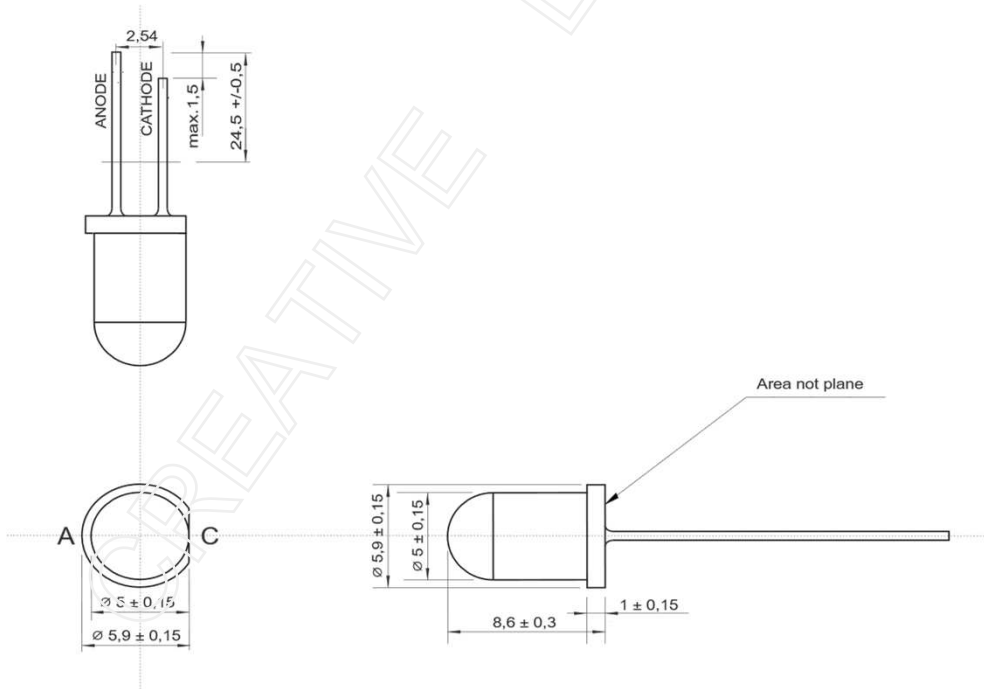
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Relative Responsivity Angle

@ T_{ambient} = 25°C



Mechanical Drawing



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