

Phototransistor**36°****CSR78011 - CSR78031PHK**

- * 4,8mm Phototransistor with separate Base for general purpose
- * Mountable in row with 5mm distance
- * Response Angle of typ. 36 degree
- * Daylight filtered black housing
- * Mechanical matched with CQR- LED-Serie
- * SMT-Version CSS78011-78031PHK
- * Current Gain selected

Optical and Electrical Characteristics @Tambient =25°C

Symbol	Parameter	MIN	Typ	MAX	UNIT	Test conditions
I_{Light}	Light Current CSR78011PHK	1,7			mA	Ee = 0,5mW/cm ² @940nm ; Vr=10V
I_{Light}	Light Current CSR78021PHK	2,1			mA	Ee = 0,5mW/cm ² @940nm ; Vr=10V
I_{Light}	Light Current CSR78031PHK	2,6			mA	Ee = 0,5mW/cm ² @940nm ; Vr=10V
I_{CEO}	Collector Dark Current			80	nA	Ee = 0 mW/cm ² ; Vr=10V
$V_{(BR)CEO}$	Collector Emitter Breakdown Voltage	30			V	Ic = 100μA ; H = 0mW/cm ²
$V_{(BR)ECO}$	Emitter Collector Breakdown Voltage	5			V	Ic = 100μA ; H = 0mW/cm ²
V_{CEsat}	Collector-Emitter Saturation Voltage			0,3	V	Ib = 100μA ; H = 0mW/cm ²
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		36		deg.	ΦE = 50%
β	Current Gain CSR78011PHK	500		1000		Vce = 5 V ; Ic = 2mA
β	Current Gain CSR78021PHK	800		1300		Vce = 5 V ; Ic = 2mA
β	Current Gain CSR78031PHK	1000		1800		Vce = 5 V ; Ic = 2mA
A	Active Array		0,146		mm ²	
t_f	Fall Time		15		μS	Vcc = 5V ; Ic = 1mA ; RL = 1KΩ
t_r	Rise Time		15		μS	Vcc = 5V ; Ic = 1mA ; RL = 1KΩ
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 sec.
R_{thJA}	Thermal Resistance		450		K/W	
P_{tot}	Total Power Dissipation			50	mW	Tamb 25°C

Order informations:

CSR78011 - CSR78031PHK
 CSR78011 - CSR78031PHK-CC
 CSR78011 - CSR78031PHK-FC

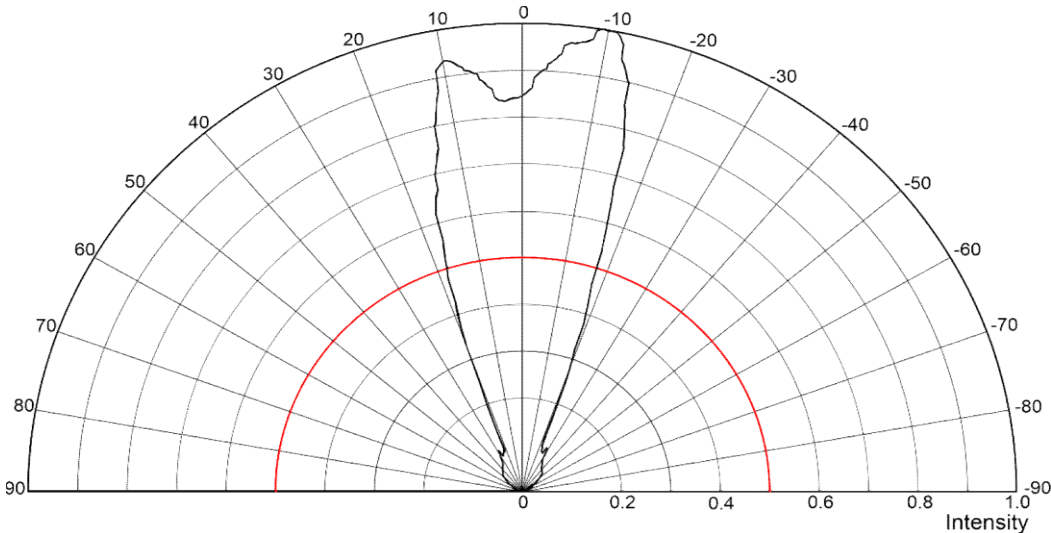
Bulk (1000pcs/bag)
 customer specific cutting (1000pcs/bag), on request
 customer specific bend (1000pcs/bag), on request

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.

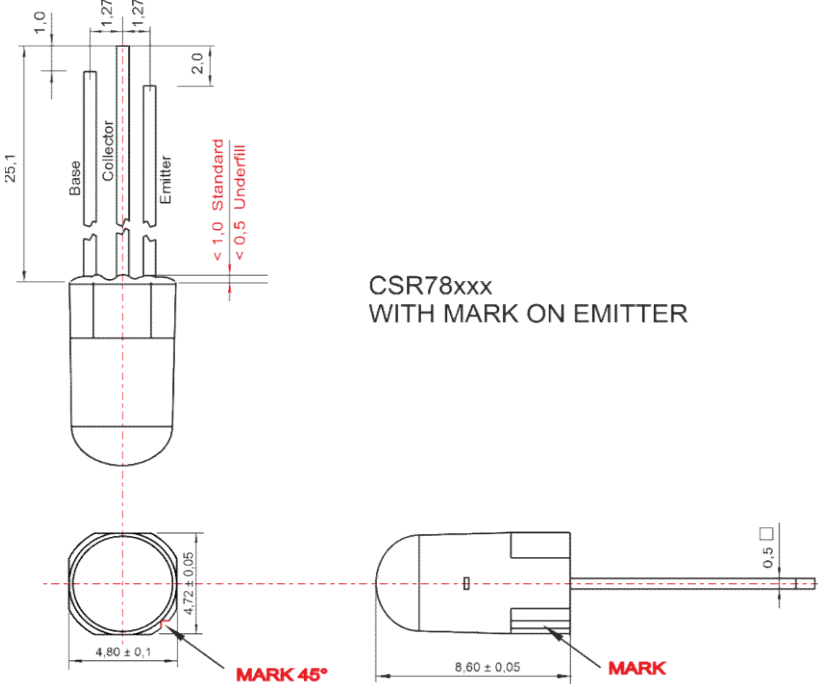
CSR78011 - CSR78031PHK

Relative Responsivity Angle

@ T_{ambient} = 25°C



Mechanical Drawing



Pls. Contact us for more technical detail information !

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.