



PROTON

JSC “Proton”

Bare photo sensitive microchip K2634CHP1N4

Description

Microchip K2634CHP1N4 is fabricated using Silicon Bipolar process technology. This chip is designed to be used in MOS-relay. It allows controlling MOSFET chips with threshold voltage 1-2 V.

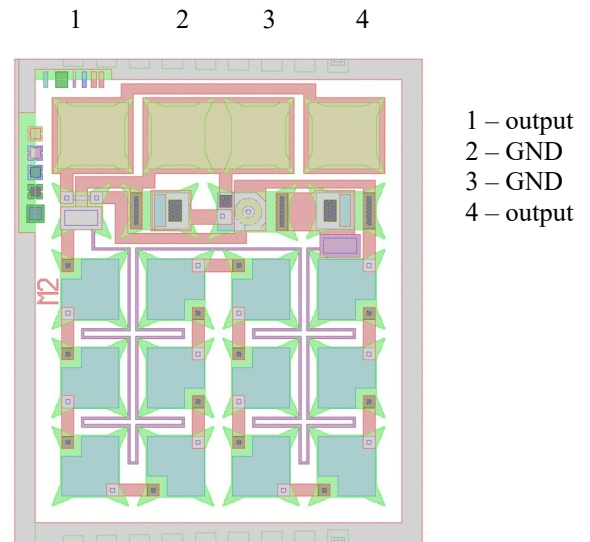
The range of spectral sensitivity is 850-940 nm.

Features

- 12 photodiodes
- Thyristor discharge circuit
- Contact pad's material – Aluminum
- Contact pad's size 0.14 x 0.13 mm
- Module size 0.8 x 0.95 mm (including scribe line)
- Scribe line width 80 μm
- Chip thickness 0.32±0.02 mm

Absolute maximum ratings

Storage temperature	- 65 °C to 150 °C
Operating Junction Temperature	- 55 °C to 125 °C



Electrical characteristics (T = 25 °C)

Parameter	Symbol	Unit	Min.	Typ.	Max.	Condition
Open Circuit Voltage	V _{OC}	V	6.3	6.8	-	1
Short Circuit Current	I _{SC}	μA	1.4	2.0	-	1
Output Voltage	V _{OUT}	V	-	-	0.9	2
Discharge Resistor	R _{DIS}	MΩ	5.0	-	25.0	
Turn-On Time	T _{ON}	ms	-	0.24	1.0	3
Turn-Off Time	T _{OFF}	ms	-	0.1	0.1	3

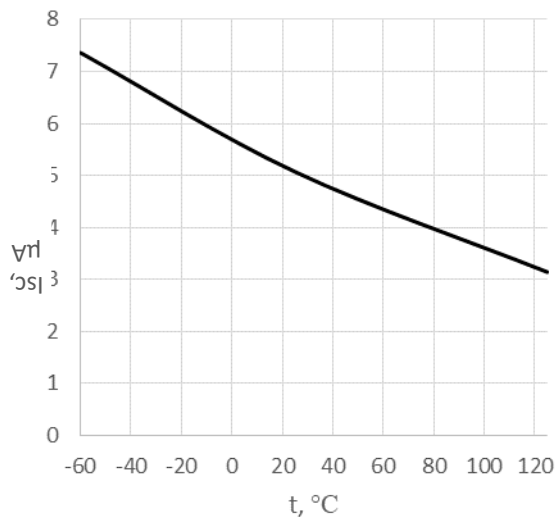
1 – Light source with peak wavelength $\lambda = 850 \pm 20$ nm that provides surface irradiance $E_e = 20$ mWt/cm²

2 – No light. I_F = 100 μA

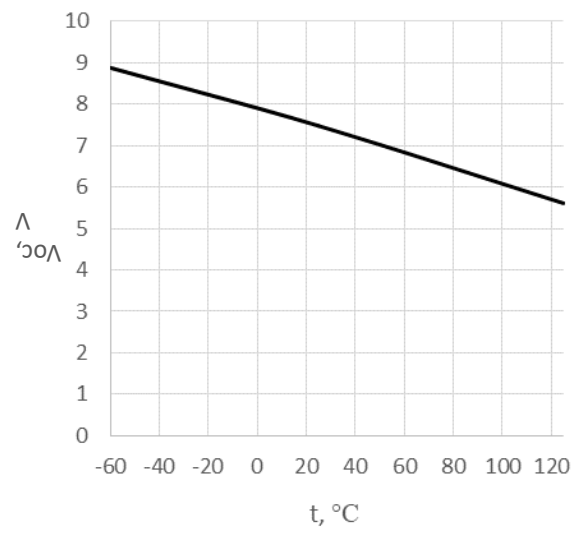
3 – Typical value at I_{RLED} = 5 mA, C_L = 330 pF. Coupled with IR-diode P_{rad} = 1000 μW (at 10 mA) with peak wavelength $\lambda = 850 \pm 20$ nm.

Typical characteristics

The typical characteristics are measured on a PDA chip coupled with IR-diode $P_{\text{rad}} = 1000 \mu\text{W}$ (at 10 mA) with peak wavelength $\lambda = 850 \pm 20 \text{ nm}$.



Pic. 1 – I_{sc} vs temperature



Pic. 2 – V_{oc} vs temperature