PROTON

JSC “Proton”

Bare photo sensitive microchip K2634CHP1AN4

Description

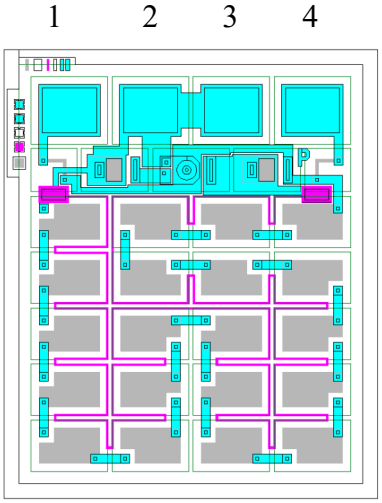
Microchip K2634CHP1AN4 is fabricated using Silicon Bipolar process technology. The chip is designed to be used in MOS-relay. It allows controlling MOSFET chips with threshold voltage 2-4 V.
The range of spectral sensitivity is 850-940 nm.

Features

- 20 photodiodes
- Thyristor discharge circuit
- Increased open circuit voltage
- Contact pad`s material – Aluminum
- Module size 1.0 x 1.2 mm (including scribe line)
- Scribe line width 80 µm
- Chip thickness 0.32 ± 0.02 mm

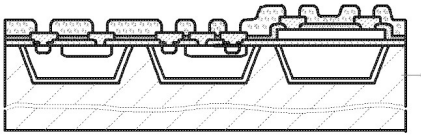
Absolute maximum ratings

Storage temperature	-65 °C to 150 °C
Operating junction temperature	-55 °C to 125 °C



1 – Output
2 – GND
3 – GND
4 – Output

Cross section view (without scale)



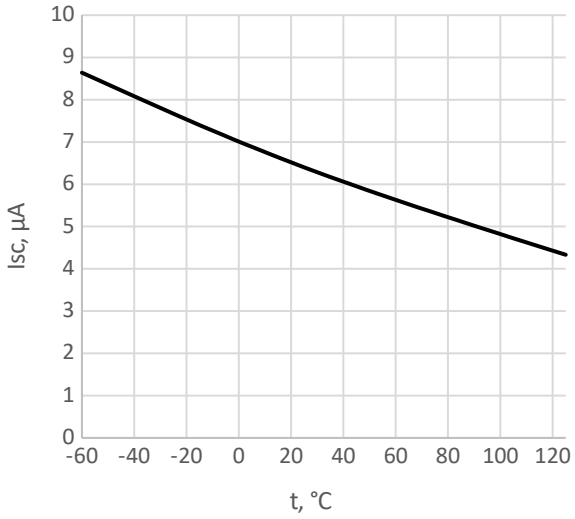
Electrical characteristics (T = 25 °C)

Parameter	Symbol	Unit	Min.	Typ.	Max.	Condition
Open Circuit Voltage	V_{OC}	V	11.0	11.4	-	1
Short Circuit Current	I_{SC}	µA	2.0	3.5	-	1
Output Voltage	V_{OUT}	V	-	0.7	0.9	2
Discharge Resistor	R_{DIS}	MOhm	5.0	-	25.0	
Turn-On Time	T_{ON}	ms	-	-	1.0	3
Turn-Off Time	T_{OFF}	ms	-	-	0.2	

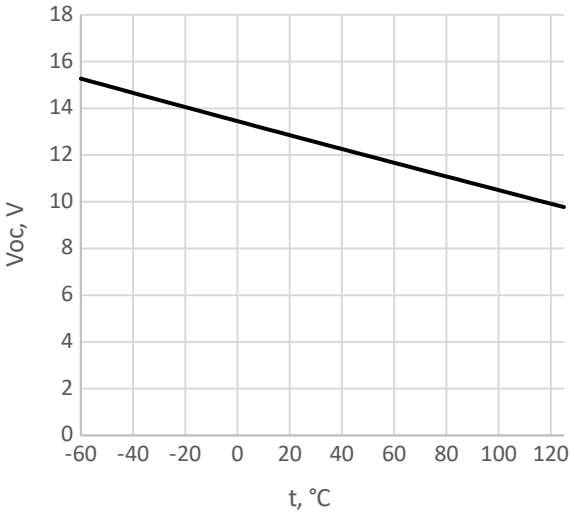
1 – Light source with peak wavelength λ = 850 ±20 nm that provides surface irradiance E_e = 20 mWt/cm^2
2 – No light. I_F = 100 µA.
3 – Typical value at IR_{LED} = 10 mA, C_L = 250 pF. Coupled with IR-diode P_{rad} = 1400 µW (at 10 mA) with peak wavelength λ = 850 ±20 nm.

Typical characteristics

The typical characteristics are measured on a PDA chip coupled with IR-diode P_{rad} = 1400 μW (at 10 mA) with peak wavelength λ = 850 ±20 nm.



Pic. 1 – Isc vs temperature



Pic. 2 – Voc vs temperature