

## Photodiode array chip FM24P

### Description

FM24P chip is fabricated using Silicon Bipolar process technology. The chip is designed to be used in MOS-relay. Consists of 20 photodiodes that allows controlling MOSFET chips with threshold voltage 2-4 V.

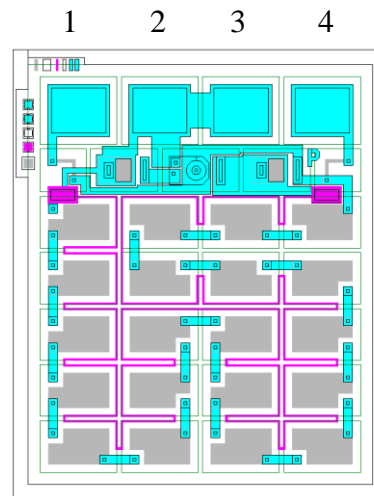
New monolith polysilicon structure.  
No delamination at high temperatures.

### Features

- 20 photodiodes
- Thyristor discharge circuit
- Increased open circuit voltage
- Contact pad`s material - Aluminium
- Chip size 1.0 x 1.2 mm ± 0.1 mm
- Chip thickness 0.32 ± 0.02 mm

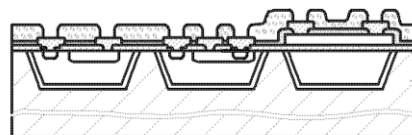
### Absolute maximum ratings

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



### Electrical characteristics (T = 25 °C)

Parameter	Symbol	Unit	Min.	Typ.	Max.	Condition
Open Circuit Voltage	V <sub>OC</sub>	V	11.0	11.4	-	1
Short Circuit Current	I <sub>SC</sub>	μA	2.0	3.5	-	1
Output Voltage	V <sub>OUT</sub>	V	-	0.7	0.9	2
Discharge Resistor	R <sub>DIS</sub>	MOhm	5.0		25.0	
Turn-On Time	T <sub>ON</sub>	ms		1.0		3
Turn-Off Time	T <sub>OFF</sub>	ms		0.2		

- 1 – Light source with peak wavelength  $\lambda = 850 \pm 20$  nm that provides surface irradiance  $E_e = 20$  mWt/cm<sup>2</sup>
- 2 – No light. I<sub>F</sub> = 100 μA.
- 3 – Typical value at I<sub>RLED</sub> = 10 mA, C<sub>L</sub> = 250 pF. Coupled with LED  $\Phi_e = 1400$  μW with peak wavelength  $\lambda = 850 \pm 20$  nm.