PROTON

JSC “Proton”

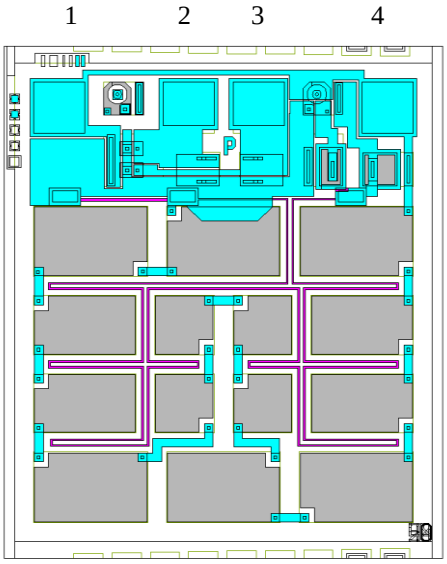
Photodiode array chip FM037P

Description

FM037P chip is fabricated using Silicon Bipolar process technology. The chip is designed to be used in MOS-relay. It includes short-current protection circuit.
New monolith polysilicon structure.
No delamination at high temperatures.

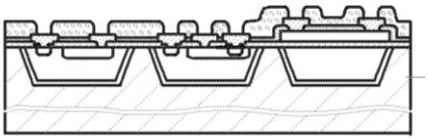
Features

- 14 photodiodes
- Thyristor discharge circuit
- Contact pad`s material - Aluminium
- Chip size 1.2 x 1.4 ± 0.1 mm
- Chip thickness 0.32 ± 0.02 mm



1 – Output
2 – GND
3 – GND
4 – Output

Cross section view



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	7.0	8.0	-	1
Short Circuit Current	I_{SC}	µA	3.1	3.4	-	1
Output Voltage	V_{OUT}	V	-	-	0.9	2
Current Limit	I_{LMT}	mA	100	180	240	1
Discharge Resistor	R_{DIS}	MOhm	5.0	-	25.0	
Turn-On Time	T_{ON}	ms	-	0.2	-	C_L = 250 pF
Turn-Off Time	T_{OFF}	ms	-	0.1	-	C_L = 250 pF

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