

Photodiode array chip FM043P

Description

FM043P chip is fabricated using Silicon Bipolar process technology. The chip is designed to be used in MOS-relay. Consists of 14 photodiodes that allows controlling MOSFET chips with threshold voltage 1-2 V.

New monolith polysilicon structure.

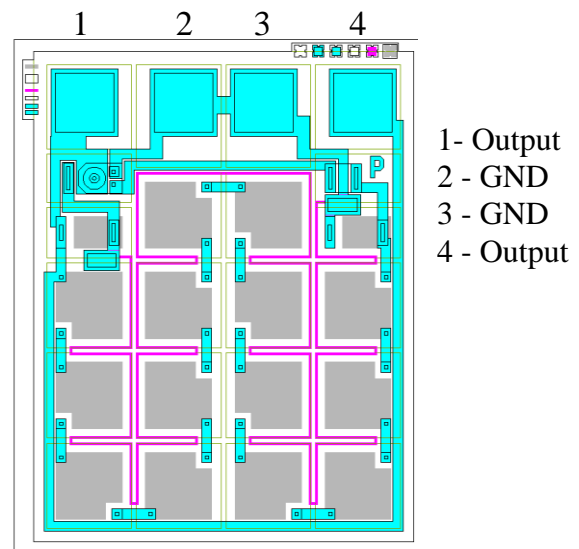
No delamination at high temperatures.

Features

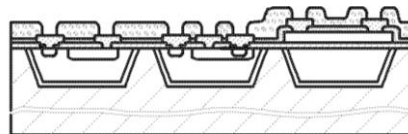
- 14 photodiodes
- Thyristor discharge circuit
- Contact pad's material - Aluminium
- Chip size 1.0 x 1.22 mm \pm 0.1 mm
- Chip thickness 0.32 mm \pm 0.02 mm

Absolute maximum ratings

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



Cross section view



Electrical characteristics (T = 25 °C)

Parameter	Symbol	Unit	Min.	Typ.	Max.	Condition
Open Circuit Voltage	V _{OC}	V	7.0	7.5	-	1
Short Circuit Current	I _{SC}	μA	2.7	3.2	-	1
Output Voltage	V _{OUT}	V	-	-	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 $\lambda = 850 \pm 20$ nm that provides surface irradiance $E_e = 20$ mWt/cm²

2 – No light. I_F = 100 μA

3 – Typical value at I_{RLED} = 10 mA, C_L = 250 pF. Coupled with LED $\Phi_e = 1400$ μW with peak wavelength $\lambda = 850 \pm 20$ nm.