PROTON

JSC “Proton”

Phototriac chip OPTOTRIAC 269-03

Description

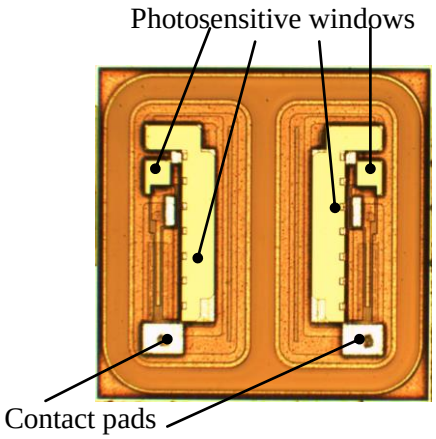
Zero voltage crossing phototriac chip OPTOTRIAC 269-03 is designed to be used as phototriac receiver to drive power triacs in phototriacs and to switch AC-circuits in optoelectronic relays` circuits of consumer-oriented industrial automation.

Features

- Module size 1.2 x 1.2 mm (including scribe line)
- Scribe line width 60 µm
- Contact pads’ size 0.108 x 0.102 mm
- Chip thickness 0.30 ± 0.02 mm
- Top contacts` material – AlSi, Bottom contacts` material – Si

Absolute maximum ratings

Parameter, unit	
Maximum Switching Voltage	600 V
Storage Temperature	-65°C to 150°C
Operating Junction Temperature	-55°C to 125°C



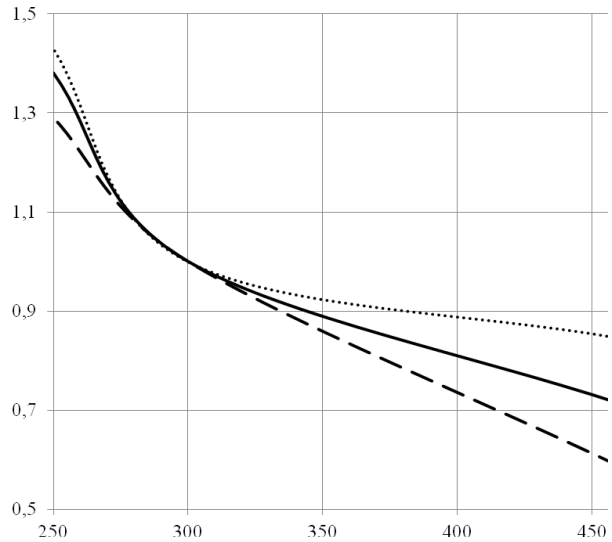
Electrical characteristics (T = 25 °C)

Parameter	Symbol	Min	Typ	Max	Notes
Peak On-State Voltage, V (I_{TM} = 100 mA)	V_{TM}		2.4	3.0	1
Inhibit Voltage, V	V_{INH}		7.0	20.0	1
Peak Off-State Current, µA (V_{DRM} = 630 V)	I_{DRM1}		0.02	0.1	2
Peak Off-State Current while Lighting, µA (V_{DRM} = ±600 V)	I_{DRM2}			400	1
Holding current, µA	I_H	200	350	500	1,3,4
Critical Rate of Rise Off-State Voltage, V/µs (V_{in} = 600 V)	dv/dt	1000	1200		5

Notes:
1 – Light source with peak wavelength λ = 890 ±50 nm that provides surface irradiance E_e = 100 mW/cm^2 is used.
2 – No light.
3 – Checked at 5 points on the wafer.
4 – Holding current is specified for the wafers with the thickness 0,30 ± 0.02 mm.
The dependence of the holding current I_H on the wafer thickness is specified at page 2.
The dependence of the holding current I_H on the temperature is specified at page 2.
5 – Measured in the packaged device.

I_H/ I_H(300 µm)

Standard holding current I_H vs wafer thickness

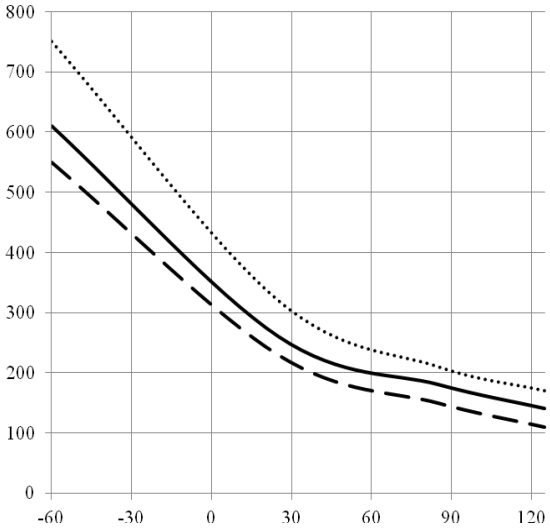


Wafer thickness, µm

maximum
average
minimum

I_H/ µA

Holding current vs temperature



T, °C

maximum
average
minimum