

Photologic chip FS195

General description

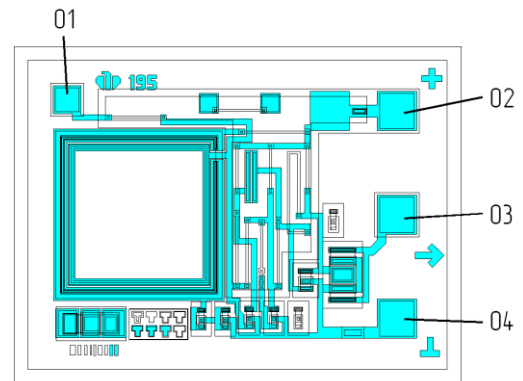
FS195 chip is fabricated using Silicon Bipolar process technology. This chip is designed to be used in high speed digital optocouplers. Chip consists of a high gain linear amplifier and output Shottky transistor. Chips can be specially probed to satisfy customer`s requirements.

Features

- LSTTL/TTL Input and Output Compatible
- High Speed Switching
- Open Collector Output
- Chip Size – 1.6 x 1.2 mm
- Chip thickness 0.38mm ±0.02 mm
- Metallization: top – Aluminium
- Data transfer rate – 5 Mbit/sec

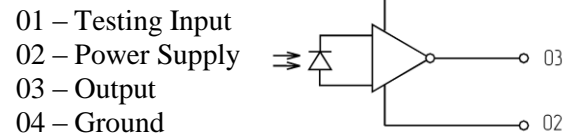
Absolute maximum ratings

Storage Temperature	-65 °C to 150 °C
Operating Junction Temperature	-55 °C to 125 °C
Supply voltage	5.5 V
Output voltage	15 V
Output current	20 mA



Contact pads sizes

Pad #	X, mm	Y, mm	Pad #	X, mm	Y, mm
01	0.084	0.084	03	0.124	0.124
02	0.124	0.124	04	0.124	0.124



Note – Proper operation is guaranteed with high-frequency ceramic capacitor 0.1 μF connected between power supply and ground pads not more than 10 mm away from chip`s contacts.

Electrical Characteristics (Ta = 25°C)

Characteristic	Symbol	Unit	Min	Typ	Max	Conditions
Low Level Output Voltage	V _{OL}	V		0.4	0.5	I _{O1} = 25 μA, V _{CC} = 5.5 V I _{OL} =11 mA
High Level Output Current	I _{OH}	mA		0.001	0.25	I _{O1} = 4 μA, V _{CC} = 5.5 V V _O = 15 V
Logic High Power Supply Current	I _{CCH}	mA		5.5	9.0	V _{CC} = 5.5 V, I _{OL} =0 I _{O1} = 30 μA
Propagation Delay (to Logic Low)	T _{PHL}	ns		40	50	R _L =510 Ohm, C _L =15 pF, E _e =50 mW/cm ² , Note 1
Propagation Delay (to Logic High)	T _{PLH}	ns		60	80	R _L =510 Ohm, C _L =15 pF, E _e =50 mW/cm ² , Note 1
Rise Time-Fall Time	t _r , t _f	ns			20	R _L =510 Ohm, C _L =15 pF, E _e =50 mW/cm ² , Note 1

Note 1 - E_e values are measured in the packaged device