

This is a low-current, electromagnetic, monostable, not polarized, not hermetically sealed, high-frequency reed relay with one make contact, designed to switch DC electrical circuits with switching frequency to 100Hz and the power of 5W and AC electrical circuits with frequency from 400 to 1000MHz and the power of 2,5W at terminated load resistance of 50 Ohm; manufactured according to GOST 16121-86 and ИДЯУ.647613.036 ТУ.



Environmental ratings: temperate, cold and humid climate.

Ordering data: **Relay RGA 12 ИДЯУ.647613.036-01 ИДЯУ.647613.036 ТУ**

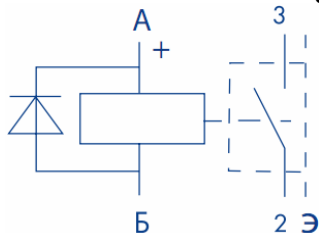
## Technical Parameters

| Type   | Model               | Rated Voltage, V | Operate Voltage, V, not more than | Release Voltage, V, not less than | Coil Resistance, Ohm |
|--------|---------------------|------------------|-----------------------------------|-----------------------------------|----------------------|
| RGA12  | ИДЯУ.647613.036     | 5 ±0,5           | 3,5                               | 0,5                               | 200±20               |
|        | ИДЯУ.647613.036 -01 | 12 ±1,2          | 8,4                               | 1,1                               | 650±65               |
| RGA12B | ИДЯУ.647613.036 -02 | 5 ±0,5           | 3,5                               | 0,5                               | 200±20               |
|        | ИДЯУ.647613.036 -03 | 12 ±1,2          | 8,4                               | 1,1                               | 650±65               |

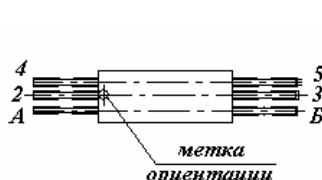
## Switching Modes

| Switching Range                                    |  | Switching Power, W, not more than | Type of Load                       | Current Type          | Switching Frequency, Hz | Number of Switching Cycles |                      | Value 95% of Gamma-Resource, not less than |
|--|--|-----------------------------------|------------------------------------|-----------------------|-------------------------|----------------------------|----------------------|--|
| I, A   | I, A   |                                   |                                    |                       |                         | Σ                          | при t=+85°C          |  |
| От 0,1·10 <sup>-5</sup><br>до 1,5·10 <sup>-4</sup> | От 0,5·10 <sup>-1</sup><br>до 1·10 <sup>-1</sup> | 5                                 | Active                             | Const                 | 100                     | 2,5·10 <sup>6</sup>        | 1,25·10 <sup>6</sup> | 0,5·10 <sup>7</sup>                        |
| Св 1,5·10 <sup>-4</sup><br>до 0,1·10 <sup>-1</sup> | Св 0,1<br>до 36                                  |                                   |                                    |                       |                         | 0,1·10 <sup>7</sup>        | 0,5·10 <sup>6</sup>  | 0,2·10 <sup>7</sup>                        |
| Св 0,1·10 <sup>-1</sup><br>до 0,25                 | Св 1,0<br>до 90                                  |                                   |                                    |                       |                         | 0,1·10 <sup>6</sup>        | 0,5·10 <sup>5</sup>  | 0,2·10 <sup>6</sup>                        |
| Св 0,1·10 <sup>-5</sup><br>до 0,25                 | От 0,5·10 <sup>-1</sup><br>до 20                 | 2,5                               | Terminated load resistance, 50 Ohm | var<br>400 – 1000 MHz |                         | 0,1·10 <sup>6</sup>        | 0,5·10 <sup>5</sup>  | 0,2·10 <sup>6</sup>                        |

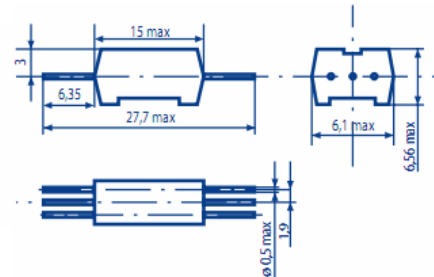
### Schematic Circuit Diagram



### Terminal Position



### External Dimensions





## Technical Specifications

|   |         |
|---|---------|
| Contact Resistance, Ohm, not more than  | 0,3     |
| Maximal Switching Voltage, V  | 90      |
| Maximal Switching Current, A  | 0,25    |
| Operate/Release Time, ms, not more than                                       | 0,8/0,3 |
| Insulation Resistance between relay circuits, mOhm, not less than             |         |
| at normal ambient temperature   | 1000    |
| at maximal operating temperature  | 100     |
| in conditions of high humidity, silver thaw, dew                              | 10      |
| in conditions of salt fog, mold &fungi, static dust (Model B)                 | 5       |
| Electric Strength of Insulation (effective value),V                           |         |
| <i>between open contacts :</i>  |         |
| at a normal ambient temperature   | 130     |
| in conditions of high humidity, frost, dew                                    | 100     |
| at a low air pressure   | 130     |
| in conditions of salt fog, mold &fungi, static dust (Model B)                 | 100     |
| <i>between contacts and coil :</i>  |         |
| at a normal ambient temperature   | 500     |
| at a higher humidity, frost, dew  | 300     |
| at a lower atmospheric pressure   | 250     |
| in conditions of salt fog, mold fungi, static dust (Model B)                  | 250     |
| <i>between contact and shield :</i>   |         |
| at a normal ambient temperature   | 200     |
| in conditions of high humidity, silver thaw, dew                              | 180     |
| at a low air pressure   | 150     |
| in conditions of salt fog, mold & fungi, static dust (Model B)                | 150     |
| <i>between coil and shield :</i>  |         |
| at a normal ambient temperature   | 200     |
| in conditions of high humidity, silver thaw, dew                              | 180     |
| at a low air pressure   | 150     |
| in conditions of salt fog, mold & fungi, static dust (Model B)                | 150     |
| Electric Capacity of Open Contacts, pf, not more than                         | 0,5     |
| VSWR, from 400 to 1000 MHz, not more than                                     | 1,8     |
| Damping Factor of Open/Closed Contacts, dB, not more than                     | 20/3    |
| Weight, g, not more than  | 1,5     |
| Switching Wattage of a High Frequency Signal, W, not more than                | 2,5     |
| Time of Continuous Live Coil Standing at Maximal Ambient Temperature, h       |         |
| ИДЯУ.647613.036 - 00,-02  | 1000    |
| ИДЯУ.647613.036 -01,-03   | 10000   |
| Total Time of Continuous Live Coil Standing at Maximal Ambient Temperature, h |         |
| ИДЯУ.647613.036 -00,-02   | 5000    |
| ИДЯУ.647613.036 -01,-03   | 50000   |

## Operating Conditions

|                                   |   |
|-----------------------------------|---|
| Ambient Temperature, °C           | from minus 60 to plus 85                                      |
| Air Pressure, Pa, (mm of Mercury) | $6,7 \cdot 10^2 \dots 3,0 \cdot 10^5$ (5...2280)              |
| Relative Air Humidity at 35 °C, % | to 98   |
| Vibration Loads :                 |   |
| Over 1 to 2000 Hz                 | with acceleration amplitude of 200 m/sec <sup>2</sup> (20g)   |
| Shock Loads                       |   |
| Single Shock Duration 2±0,1 ms    | 9 shocks with acceleration to 5000 m/sec <sup>2</sup> (500g)  |
| Multiple Shock Duration 10±2 ms   | 4000 shocks with acceleration to 400 m/sec <sup>2</sup> (40g) |