

A fully screened relay offering low RF loss and high current carrying capacity, which was developed with RF design engineers in the radio communications industry. The relay coil is totally enclosed in a copper screen, resulting in lower self-heating and RF loss, and Rhodium contacts are used in the vacuum reed switches, yielding higher carry currents for a given frequency and ambient temperature.

Available as Form A (SPNO), Form B (SPNC) or latching (bistable) contact configurations with switch connections via either PCB or flying lead

| Contact | Units | Conditions | Form A | Form B | Latching |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Contact Material |  |  | Rhodium | Rhodium | Rhodium |
| Isolation across contacts | kV | DC or AC peak | 3 | 3 | 3.5 |
| Max. carry current | A | DC or AC rms | 4* | 4* | 1.5 |
| Max. switching power | W |  | 10 | 10 | 10 |
| Max. switching voltage | V | DC or AC peak | 20 | 20 | 20 |
| Max. switching current | A | DC or AC peak | 0.5 | 0.5 | 0.5 |
| Capacitance across contacts | pF | coil/screen grounded | <0.1 | <0.1 | <0.1 |
| Lifetime | operations | dry switching | $10^{9}$ | $10^{9}$ | $10^{9}$ |
| Lifetime | operations | 10W switching | $10^{8}$ | $10^{8}$ | $10^{8}$ |
| Contact Resistance | m0hms | maximum (typical) | 80 (30) | 80 (30) | 80 (30) |
| Insulation Resistance | Ohms | minimum (typical) | $10^{10}\left(10^{13}\right)$ | $10^{10}\left(10^{13}\right)$ | $10^{10}\left(10^{13}\right)$ |
| Coil |  |  | $5 \mathrm{~V} \quad 12 \mathrm{~V} \quad 24 \mathrm{~V}$ | 5 V 12V 24V | 5 V |
| Must Operate | V | DC, $20^{\circ} \mathrm{C}$ | $3.5 \quad 8 \quad 15$ | $\begin{array}{lll}3.5 & 8 & 15\end{array}$ | N/A N/A |
| Must Release | V | DC, $20^{\circ} \mathrm{C}$ | 1204 | 24 | $3 \quad 7$ |
| Min Pulse Length |  | ms | N/A N/A N/A | N/A N/A N/A | 2.02 .0 |
| Operate Time |  | ms | $\begin{array}{lll}1.0 & 1.0 & 1.0\end{array}$ | $\begin{array}{llll}1.0 & 1.0 & 1.0\end{array}$ | $1.0 \quad 1.0$ |
| Release Time | ms | diode fitted | $\begin{array}{lll}0.5 & 0.5 & 0.5\end{array}$ | $\begin{array}{lll}0.5 & 0.5 & 0.5\end{array}$ | 1.0 |
| Resistance | Ohms | $20^{\circ} \mathrm{C}$ | $\begin{array}{ll}70 & 380\end{array} 1500$ | $\begin{array}{llll}65 & 350 & 1200\end{array}$ | 100500 |
| Gonstruction |  |  |  |  |  |
| Isolation contact to coil | kV | DC or AC peak | 3 | 3 | 3.5 |
| Environmental |  |  |  |  |  |
| Operating temperature range | ${ }^{\circ} \mathrm{C}$ | Limited Current | -40 to +100 * | -40 to +100 * | -40 to +100 |
| Storage temperature range | ${ }^{\circ} \mathrm{C}$ |  | -40 to +125 | -40 to +125 | -40 to +125 |
| Weight | gm | typical | 5.3 | 6.1 | 5.0 |
| *see graphical data |  |  |  |  |  |
| Part Numbering system |  |  |  | A R | 05 S |
| Reed switch Size - $S$ $\qquad$ <br> Contact Form A: Form A, B: Fo <br> Contact Material R: Rhodium Relay Series Number $\qquad$ <br> Coil Voltage 5: 5V, 12: 12V, 24: <br> Screening S: Fully Screened <br> Contact Pin Orientation D: PC | orm B, L: Lat <br> 24V <br> U U: flying | ching |  |  | $-$ |



Mechanical Dimensions
All dimensions are in millimeters (inches)

Flying Lead

PCB Mount

Pins 3, 4 require 1 mm diameter $\pm 0.05$ holes


Circuit diagram, Form B

(all pins views from above)


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