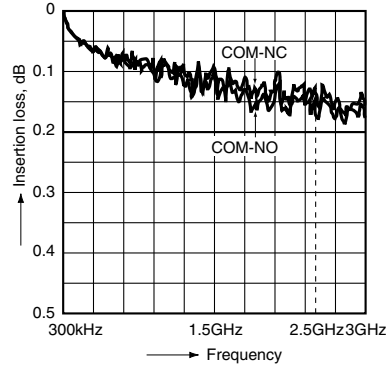


1. Excellent high frequency characteristics (~2.5GHz, Impedance 50Ω)

- Insertion loss: 0.2 dB or less
- Isolation: 60 dB or more

• Insertion loss



- V.S.W.R./ Return loss: 1.2dB or less/ 20.8dB or more

2. High sensitivity

- Nominal operating power: 200 mW

3. Small size

- Size: 20.5(L) × 12.4(W) × 9.4(H) mm
.807(L) × .488(W) × .370(H) inch

* Also available for unit support (contact us for more details).

SPECIFICATIONS

Contact

Arrangement	1 Form C	
Contact material	Gold	
Initial contact resistance	Max. 100 mΩ	
Rating	Contact rating	10W (2.5 GHz, Impedance 50 Ω, V.S.W.R. ≤ 1.2) 10mA 24V DC (resistive load)
	Contact carrying power	Max. 20W (at 40°C, V.S.W.R. ≤ 1.2, Average)
	Max. switching voltage	30 V DC
	Max. switching current	0.5 A DC
High frequency characteristics (~2.5GHz, Impedance 50Ω)	V.S.W.R. (Return loss)	Max. 1.2 (Min. 20.8dB)
	Insertion loss	Max. 0.2 dB
	Isolation	Min. 60 dB
	Input power	Max. 20W (at 40°C, V.S.W.R. ≤ 1.2, Average)
Expected life (min. operations)	Mechanical (at 180 cpm)	5×10 ⁶
	Electrical	10mA 24 V DC (resistive load)
		10W 2.5 GHz, Impedance 50Ω, V.S.W.R. ≤ 1.2

Characteristics

Initial insulation resistance* ¹		Min. 100 MΩ (at 500 V DC)
Initial breakdown voltage* ²	Between open contacts	500 Vrms
	Between contact and coil	1,000 Vrms
	Between contact and earth terminal	500 Vrms
Operate time [Set time]* ³ (at 20°C)		Max. 10ms (Approx. 6ms) [Max. 10ms (Approx. 5ms)]
Release time (without diode) [Reset time]* ³		Max. 6ms (Approx. 3ms) [Max. 10ms (Approx. 5ms)]
Temperature rise (at 20°C)* ⁴		Max. 60°C
Shock resistance	Functional* ⁵	Min. 200 m/s ² {20 G}
	Destructive* ⁶	Min. 1,000 m/s ² {100 G}
Vibration resistance	Functional* ⁷	10 to 55 Hz at double amplitude of 3 mm
	Destructive	10 to 55 Hz at double amplitude of 5 mm
Conditions for operation, transport and storage* ⁸ (Not freezing and condensing at low temperature)	Ambient temp.	-40°C to 70°C -40°F to 158°F
	Humidity	5 to 85% R.H.
Unit weight		Approx. 5 g .18 oz

Coil (at 20°C, 68°F)

	Nominal operating power
Single side stable	200 mW
1 coil latching	200 mW
2 coil latching	400 mW

Remarks

- *¹ Measurement at same location as "Initial breakdown voltage" section.
- *² Detection current: 10mA
- *³ Nominal operating voltage applied to the coil, excluding contact bounce time.
- *⁴ By resistive method, nominal voltage applied to the coil: Contact carrying power: 20W, at 2.5GHz, Impedance 50Ω, V.S.W.R. ≤ 1.2
- *⁵ Half-wave pulse of sine wave: 11ms, detection time: 10μs.
- *⁶ Half-wave pulse of sine wave: 6ms
- *⁷ Detection time: 10μs
- *⁸ Refer to 6. Conditions for operation, transport and storage mentioned in AMBIENT ENVIRONMENT

TYPICAL APPLICATIONS

- Cellular phone base station (W-CDMA, FPLMTS, IMT-2000, PCS, DCS)
- Cellular phone-related measurement devices (SP3T/SP4T switches, etc)
- Wireless LAN
- Wireless Local Loop

ORDERING INFORMATION

Ex. A RX 1 0 12

Product name	Contact arrangement	Operating function	Coil voltage, V DC
RX	1: 1 Form C	0: Single side stable 1: 1 coil latching 2: 2 coil latching	03: 3 09: 9 4H: 4.5 12: 12 06: 6 24: 24

Note: Standard packing; Carton: 50 pcs. Case 500 pcs.

RX (ARX)

TYPES ANE COIL DATA (at 20°C 68°F)

• Single side stable type

Part No.	Nominal voltage, V DC	Pick-up voltage, V DC (max.)(initial)	Drop-out voltage, V DC (min.)(initial)	Coil resistance, Ω (±10%)	Nominal operating current, mA (±10%)	Nominal operating power, mW	Max. allowable voltage, V DC (at 60°C)
ARX1003	3	2.25	0.3	45	66.7	200	3.3
ARX104H	4.5	3.375	0.45	101	44.4	200	4.95
ARX1006	6	4.5	0.6	180	33.3	200	6.6
ARX1009	9	6.75	0.9	405	22.2	200	9.9
ARX1012	12	9	1.2	720	16.7	200	13.2
ARX1024	24	18	2.4	2,880	8.3	200	26.4

• 1 coil latching type

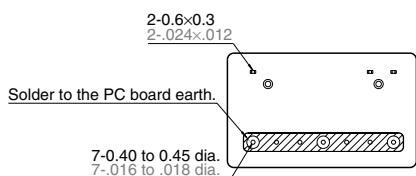
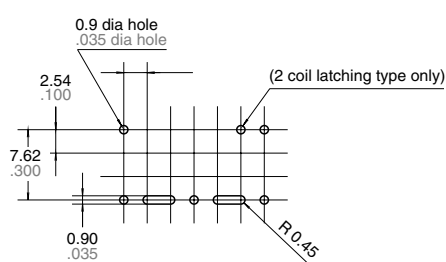
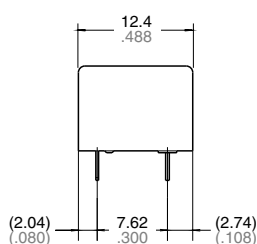
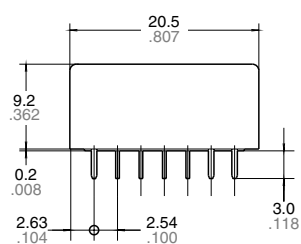
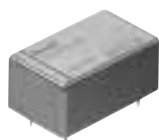
Part No.	Nominal voltage, V DC	Set voltage, V DC (max.)(initial)	Reset voltage, V DC (max.)(initial)	Coil resistance, Ω (±10%)	Nominal operating current, mA (±10%)	Nominal operating power, mW	Max. allowable voltage, V DC (at 60°C)
ARX1103	3	2.25	2.25	45	66.7	200	3.3
ARX114H	4.5	3.375	3.375	101	44.4	200	4.95
ARX1106	6	4.5	4.5	180	33.3	200	6.6
ARX1109	9	6.75	6.75	405	22.2	200	9.9
ARX1112	12	9	9	720	16.7	200	13.2
ARX1124	24	18	18	2,880	8.3	200	26.4

• 2 coil latching type

Part No.	Nominal voltage, V DC	Set voltage, V DC (max.)(initial)	Reset voltage, V DC (max.)(initial)	Coil resistance, Ω (±10%)	Nominal operating current, mA (±10%)	Nominal operating power, mW	Max. allowable voltage, V DC (at 60°C)
ARX1203	3	2.25	2.25	22.5	133.3	400	3.3
ARX124H	4.5	3.375	3.375	50.6	88.9	400	4.95
ARX1206	6	4.5	4.5	90	66.7	400	6.6
ARX1209	9	6.75	6.75	202.5	44.4	400	9.9
ARX1212	12	9	9	360	33.3	400	13.2
ARX1224	24	18	18	1,440	16.7	400	26.4

DIMENSIONS

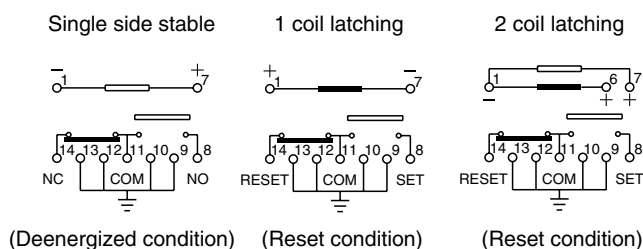
mm inch



General tolerance: $\pm 0.3 \pm 0.012$

Tolerance: $\pm 0.1 \pm 0.004$

Schematic (Bottom view)



REFERENCE DATA

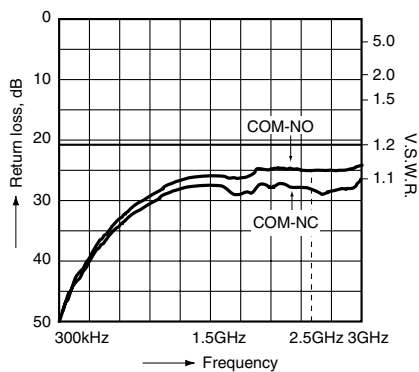
1. High frequency characteristics

Sample: ARX1012

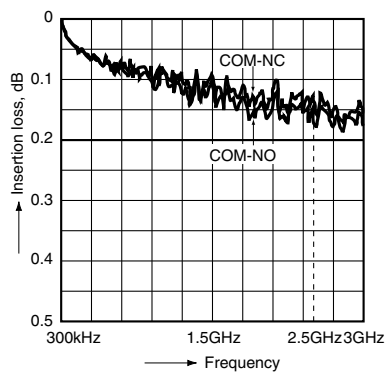
Measuring method: Measured with HP network analyzer (HP8753C).

The details for the high frequency characteristics and the measurement procedures and conditions are listed in the RX relay test report.

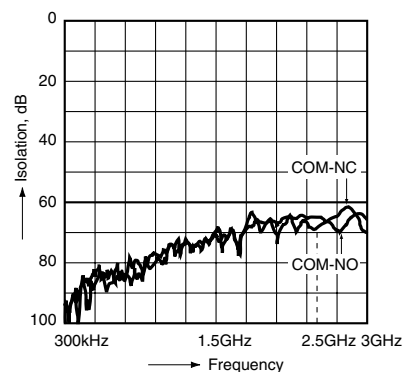
- V.S.W.R. (Return loss)



- Insertion loss



- Isolation



F