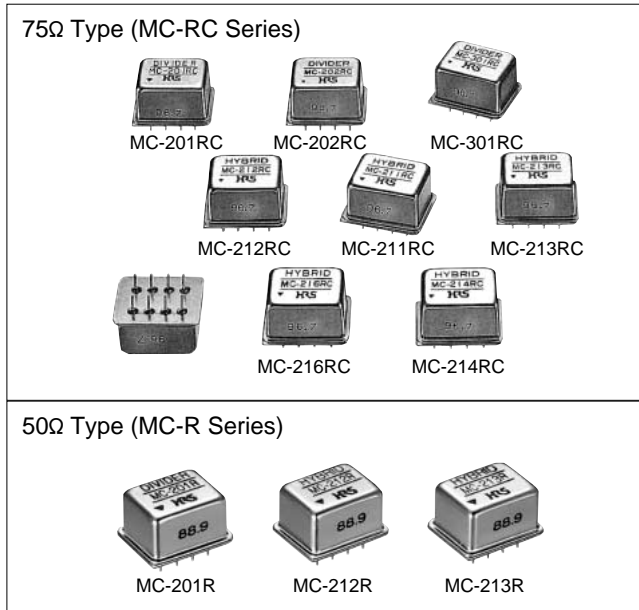


# Coil Components (Relay Headers)

## MC-R and MC-RC Series



### ■Features

#### 1. Excellent High Frequency Characteristics

The use of coils made with a special winding method based on a lumped-constant design provide a high degree of matching, low loss, and high isolation.

#### 2. Highly Reliable Design

The metal case is designed with a hermetically sealed construction which contains inert gas. This permits quality to be maintained over a long period.

#### 3. Easy Soldering

The pre-soldering leads give easy soldering operations.

#### 4. Prevention of Flux Creepage

Use of the supplied Teflon sheet permits the prevention of solder flux creepage.

### ■Product Specifications

Rating	Frequency range (NOTE)	30 to 200 MHz	Operating temperature range	-10°C to +65°C
	Characteristic impedance (NOTE)	50Ω, 75Ω	Operating relative humidity	95% or less
	Maximum usable power	0.5 W		

NOTE: The frequency range and the characteristic impedance will differ depending on the model.

Item	Standard	Conditions
· 1. Vibration resistance	· No damage, cracks, or parts looseness	Frequency of 10 to 2000 Hz, overall amplitude of 1.5 mm, 98 m/s <sup>2</sup> acceleration, in 3 axial directions 4 hours each
· 2. Shock resistance	· No damage, cracks, or parts looseness	294 m/sFD acceleration, half sine wave, in 3 axial directions, 3 times each
· 3. Temperature cycle	· No damage, cracks, or parts looseness	(-35°C: 30 min. → 5 to 35°C: Within 15 min. → 85°C: 30 min. → 5 to 35°C: Within 15 min.) for 5 cycles

● The test method conforms to MIL-STD-202.

### ■Materials

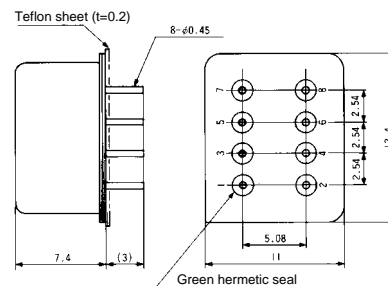
Part	Material	Processing
Board	Iron	Nickel plating
Contacts	Iron-nickel alloy	Solder dip
Hermetic seal	Glass	—

### ■Product Number Breakdown

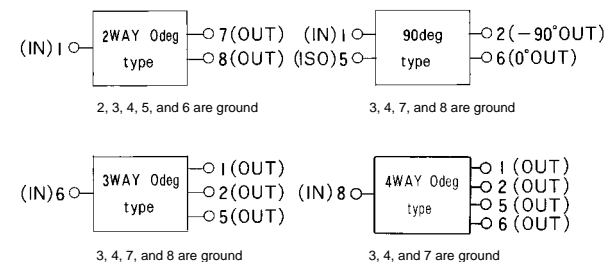
**MC - 2 0 1 R C**  
 ① ② ③ ④ ⑤ ⑥

① Series Name: MC	④ Suffix
② Number of Divisions Indicated by number of divisions of output.	⑤ Form of Case R: Relay header
③ Phase Difference Indicated by phase difference of output. 0 : 0° 1 : 90°	⑥ Characteristic Impedance C : 75Ω Blank : 50Ω

### ■External Dimensions



### ■Function Diagram



## ■ Specifications

### 2WAY 0°deg type (POWER COMBINERS AND SPLITTERS)

Model No.	(MHZ) Frequency Range	(deg) Phase Difference	(dB Max) above 3dB Insertion Loss	(dB Min) True Insertion Loss	(dB Min) Isolation	V.S.W.R. (Max)	Balance		(Ω) Impedance	(g) Weight
							(deg) Phase	(dB) Amplitude		
MC-201RC	30~200	0	0.6	3.6	25	1.3	±3	±0.1	75	3
MC-202RC	100~180	0	0.6	3.6	30	1.15	±3	±0.1	75	3
MC-201R	30~200	0	0.6	3.6	25	1.3	±3	±0.1	50	3

### 3WAY 0°deg type (POWER COMBINERS AND SPLITTERS)

Model No.	(MHZ) Frequency Range	(deg) Phase Difference	(dB Max) above 3dB Insertion Loss	(dB Min) True Insertion Loss	(dB Min) Isolation	V.S.W.R. (Max)	Balance		(Ω) Impedance	(g) Weight
							(deg) Phase	(dB) Amplitude		
MC-301RC	40~160	0	0.7	5.5	25	1.3	±3	±0.2	75	3
MC-302RC	100~180	0	0.7	5.5	25	1.2	±3	±0.2	75	3

### 2WAY 90° deg type (POWER COMBINERS AND SPLITTERS)

Model No.	(MHZ) Frequency Range	(deg) Phase Difference	(dB Max) ※ above 3dB Insertion Loss	(dB Min) True Insertion Loss	(dB Min) Isolation	V.S.W.R. (Max)	Balance		(Ω) Impedance	(g) Weight
							(deg) Phase	(dB) Amplitude		
MC-212RC	50~95	-90	0.6	3.85	25	1.2	±3	±0.5	75	3
MC-211RC	110~170	-90	0.7	3.85	25	1.2	±3	±0.5	75	3
MC-213RC	100~120	-90	0.7	3.85	20	1.2	±3	±0.5	75	3
MC-215RC	120~140	-90	0.7	3.85	20	1.2	±3	±0.5	75	3
MC-216RC	140~160	-90	0.7	3.85	20	1.2	±3	±0.5	75	3
MC-214RC	160~180	-90	0.8	3.95	20	1.2	±3	±0.5	75	3
MC-212R	50~95	-90	0.6	3.85	25	1.2	±3	±0.5	50	3
MC-213R	110~170	-90	0.7	3.85	25	1.2	±3	±0.5	50	3

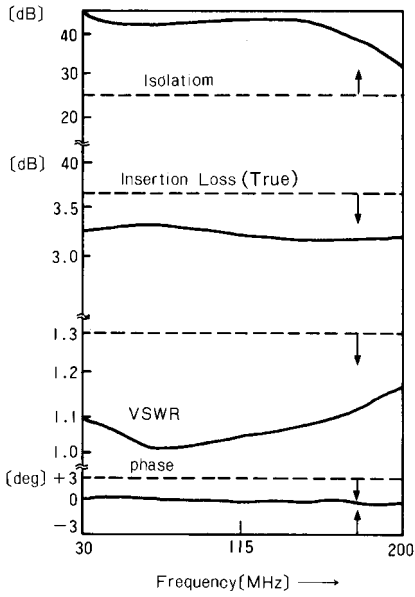
※The insertion loss of the 2-way 90° type is the average output of the 0° port and the -90° port minus 3 dB coupling.

### 4WAY 0° deg type (POWER COMBINERS AND SPLITTERS)

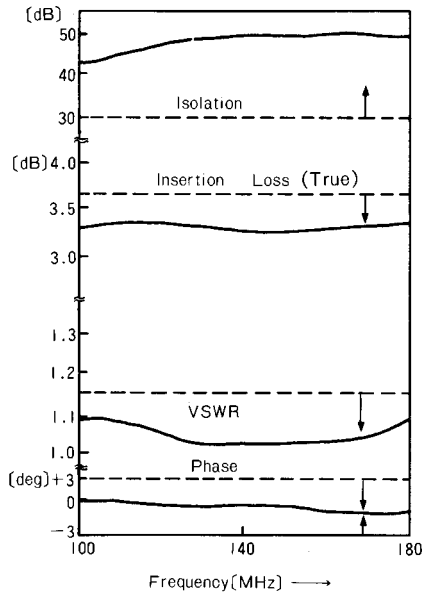
Model No.	(MHZ) Frequency Range	(deg) Phase Difference	(dB Max) above 3dB Insertion Loss	(dB Min) True Insertion Loss	(dB Min) Isolation	V.S.W.R. (Max)	Balance		(Ω) Impedance	(g) Weight
							(deg) Phase	(dB) Amplitude		
MC-401RC	40~180	0	0.8	6.8	20	1.3	±3	±0.2	75	3

■ Typical Data

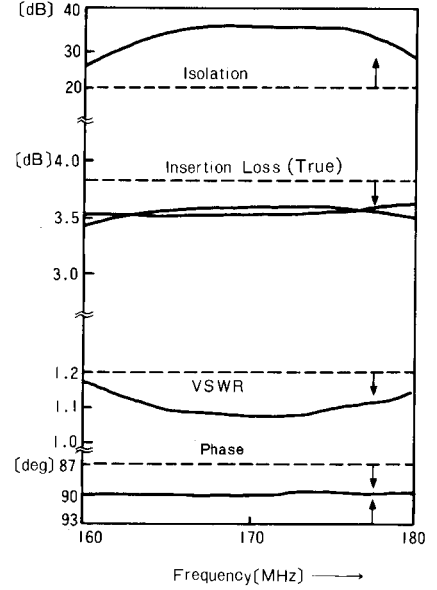
MC-201RC



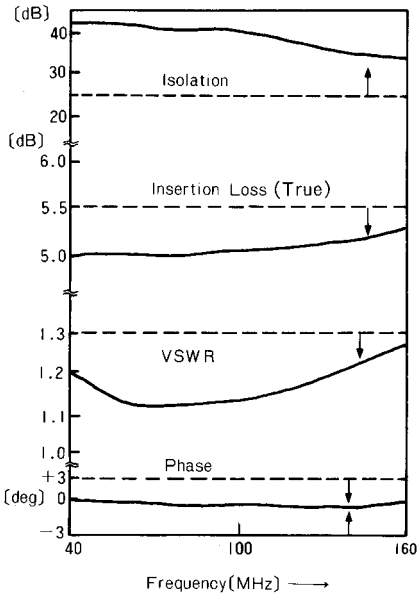
MC-202RC



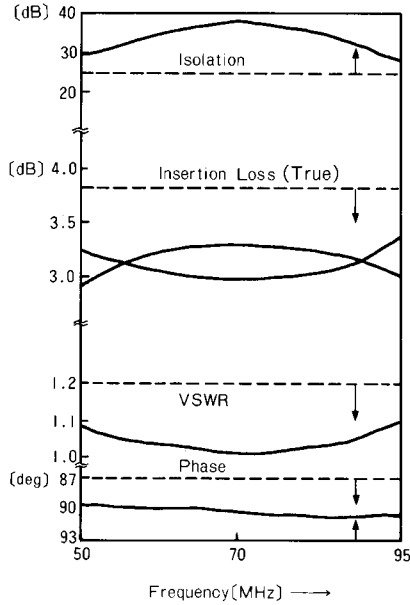
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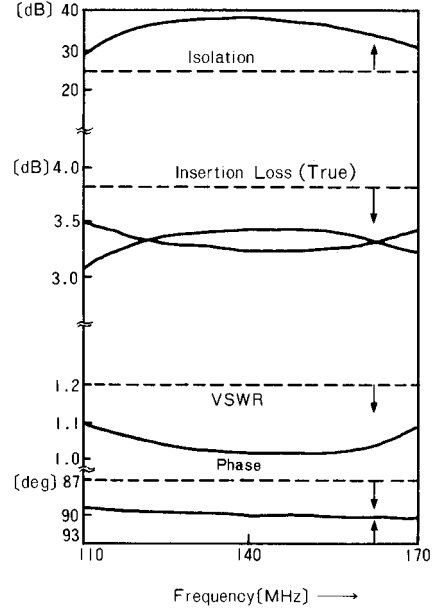
MC-301RC



MC-212RC

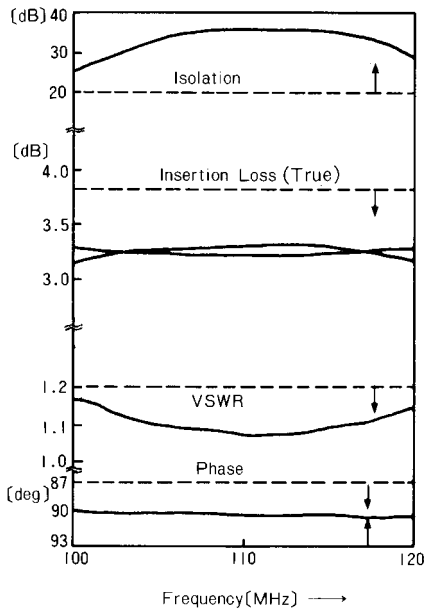


MC-211RC

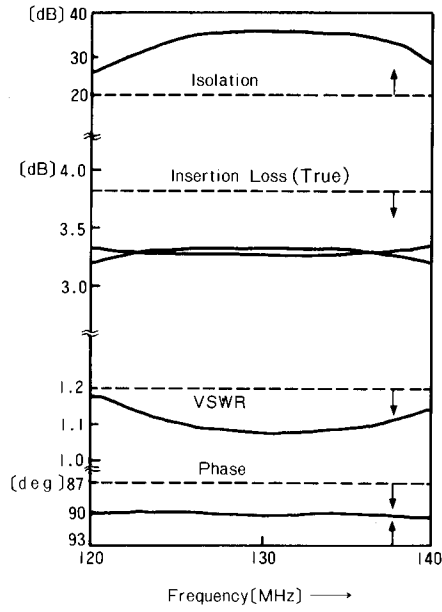


Typical Data

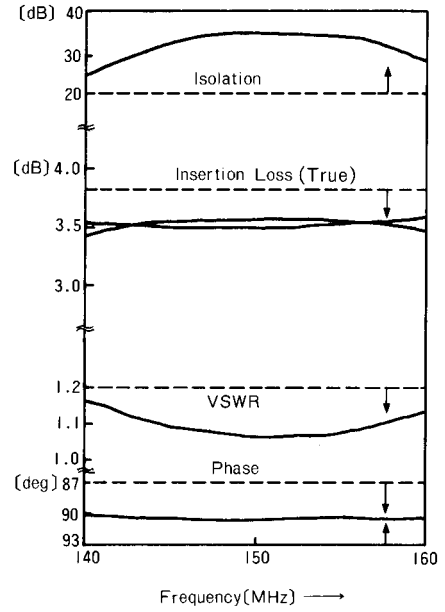
MC-213RC



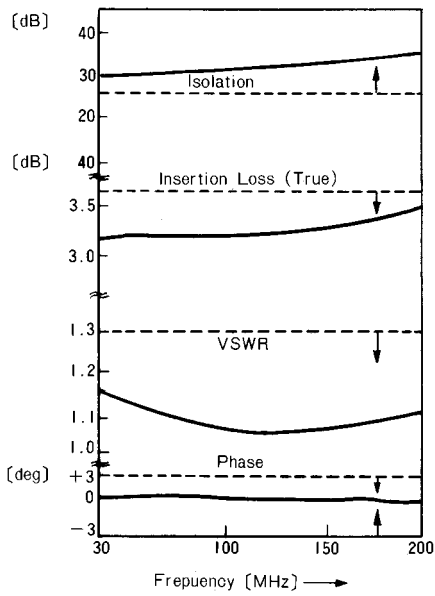
MC-215RC



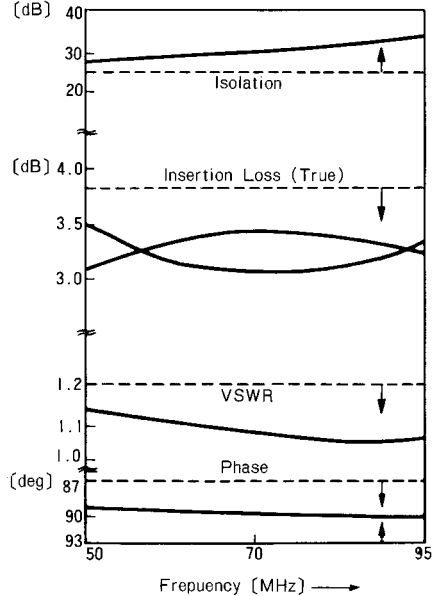
MC-216RC



MC-201R



MC-212R



MC-213R

