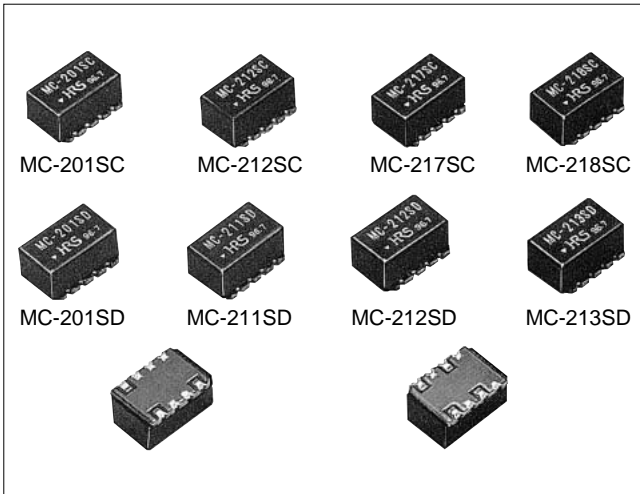


# Coil Components (SMD)

## MC-200SC and MC-200SD Series



### ■ Features

#### 1. Excellent High Frequency Characteristics

Insertion loss: 0.6 dB TYP.  
Phase balance: ±3deg TYP.

#### 2. Highly Reliable Design

PPS resin is used for the exterior cladding of the cover, glass epoxy substrate is used for the board material, and solder plating is used for the electrodes. All these factors contribute to excellent mechanical strength, heat resistance, and soldering qualities

#### 3. Suited to Automatic Mounting

Embossed tape packaging permits automatic mounting. (Individual delivery can also be accommodated.)

### ■ Product Specifications

Rating	Frequency range (NOTE) Characteristic impedance (NOTE) Maximum usable power	30 to 370 MHz 50Ω, 75Ω 0.5 W	Operating temperature range Operating relative humidity	-10°C to +65°C 95% or less
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NOTE: The frequency range and the characteristic impedance will differ depending on the model.

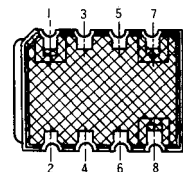
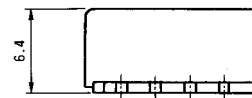
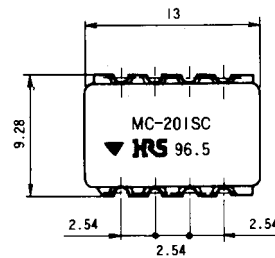
Item	Standard	Conditions
· 1. Vibration resistance	· No damage, cracks, or parts looseness	· Frequency of 10 to 2000 Hz, overall amplitude of 1.52 mm, · 98 m/s <sup>2</sup> acceleration, in 3 axial directions 4 hours each
· 2. Shock resistance	· No damage, cracks, or parts looseness	· 294 m/s <sup>2</sup> acceleration, half sine wave, in 3 axial directions, 3 times each
· 3. Temperature cycle	· No damage, cracks, or parts looseness	· (-60 to 55°C: 30 min. → 20 to 35°C: 15 min. · → 125 to 128°C: 30 min. → 20 to 35°C: 15 min.) · for 100 cycles
· 4. Corrosion resistance	· No serious corrosion	· Continuous immersion in 5% salt water for 48 hours

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

### ■ Materials

Part	Material	Processing
Board	Glass epoxy	Solder plating
Cover	PPS resin	—

### ■ External Dimensions



● The contact numbers are common for both the 0° type and the 90° type.

### ■ Product Number Breakdown

**MC - 2 0 1 S 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 S : SMT type
③ Phase Difference Indicated by phase difference of output. 0 : 0° 1 : 90°	⑥ Characteristic Impedance C : 75Ω D : 50Ω

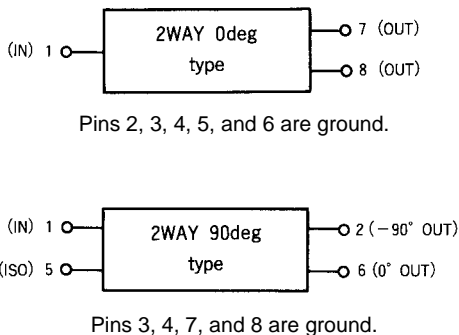
## Specifications

Model No.	(MHZ) Frequency Range	(deg) Phase Difference	(dB Max) ※ above 3dB Insertion Loss	(dB Min) Isolation	V.S.W.R. (Max)	Balance		(Ω) Impedance	(g) Weight
						(deg) Phase	(dB) Amplitude		
MC-201SC	30~200	0	0.6	20	1.3	±3	±0.1	75	1
MC-212SC	50~ 95	- 90	0.6	20	1.2	±3	±0.5	75	1
MC-217SC	45~ 70	- 90	0.6	20	1.2	±3	±0.5	75	1
MC-218SC	70~100	- 90	0.6	20	1.2	±3	±0.5	75	1
MC-201SD	30~230	0	0.6	20	1.3	±3	±0.15	50	1
MC-211SD	170~230	- 90	0.6	20	1.2	±3	±0.5	50	1
MC-212SD	45~104	- 90	0.6	20	1.2	±3	±0.5	50	1
MC-213SD	330~370	- 90	1.3	16	1.4	±4	±0.5	50	1

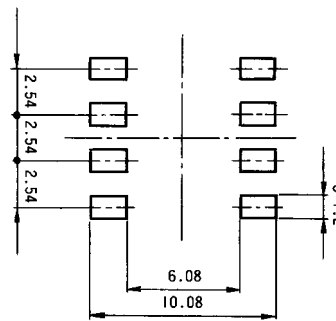
NOTE 1: The insertion loss of the 2-way 90° type is the average output of the 0° port and the -90° port minus 3 dB coupling.

NOTE 2: When ordering items with embossed tape packaging, affix (06) to the end of the product number. One reel contains 500 pieces.

## Function Diagram



## Recommended Board Pattern



● Please apply resist processing to the area around the electrode pads.

## Usage Precautions

<p>1.Soldering</p> <p>(1)Recommended temperature profile</p> <p>(2)Recommended hand soldering conditions                      Soldering iron temperature: 260℃                      Soldering time: Within 10 seconds</p> <p>(3)Recommended screen thickness0.15 mm</p>	<p>① Up to two cycles are permitted at the same conditions provided that the item is at room temperature between the first and second cycle.</p> <p>② The temperature indicates the board surface temperature of the contact lead portion.</p> <p>③ Reflow soldering should be performed at a peak temperature of 240℃ or less at the surface of the printed circuit board.</p> <p>④ The temperature profile will change depending on the conditions which include board size, solder used, and solder thickness.</p>
<p>2.Product Storage</p>	<p>① After opening the package reseal promptly or store in a desiccator with a desiccant.</p> <p>② Store in a place that is not exposed to harmful gases which include sulfur or chlorine, etc.</p> <p>③ Use within one year of delivery.</p>

■ Typical Data

