



### 系列(Series)

### OMI

#### 外型尺寸(External Dimension)

29.2x12.8x20.6 mm

#### 触点数据(Contact Data)

触点形式(Contact Arrangement)

1A (NO)

1C (CO)

额定电压(Rated voltage)

277VAC/30VDC

额定电流(Rated current)

5A/10A

触点材料(Contact Material)

Ag Alloy

接触电阻(Contact Resistance)

$\cong 100m\Omega$  (6VDC, 1A)

#### 线圈数据(Coilt Data)

磁系统(Magnetic system)

直流(DC)

线圈电压(Coil Voltage)

3~48VDC

线圈功率(瓦)(Coil power (W))

0.54W/0.72W

#### 绝缘数据(Insulation Data)

绝缘抵抗(Insulation resistance)

$\cong 1000M\Omega$  (DC500V)

开路触点之间(Open Contacts)

OP/OP  $\cong 1000VAC$

触点与线圈之间(Contacts And Coil)

IP/OP  $\cong 5000VAC$

#### 寿命数据(Service life)

电气寿命(Electrical Endurance)

$1 \times 10^5$

机械寿命(Mechanical Endurance)

$1 \times 10^7$

#### 环境数据(Environmental data)

使用环境温度(Operati Temperature)

-40~+105°C

环境保护类别IEC 61810(Type of environmental protection IEC 61810)

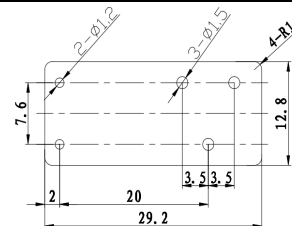
RT II, RTIII

#### 其它数据(Others Data)

重量(Weight)

13g

脚位图(Terminal Arrangement)



安装形式(Mounting Method)

PCB

#### 同行对照型号(Peer Cross-Referemce)

对照型号(Cross-Referemce)

OMRON: G2R  
HongFa: HF14FF  
SongChuan: 888/793/845  
SanYou: SMI

# OMI Series

# 10A MINIATURE POWER RELAY

## FEATURES

- Outline dimension (29.2mmx12.8mmx20.6mm)
- 1 Form A and 1 Form C contact arrangement
- Meet UL、TUV、CQC requirements
- 5000VAC dielectric strength between coil and contact
- Sensitive and standard coils available
- Class F type available
- ROHS compliance
- REACH SvHC compliance
- Halogen-Free type available



CQC18002204331



R50420105



E502916

## APPLICATION

Appliances, Power Supplier, Industrial Control

## COIL

COIL Voltage	3-48VDC	
COIL power	OMI-L	540mW
	OMI-D	720mW

## COIL DATA@23°C

OMI-L(540mW,Sensitive)				
Nominal coil voltage(VDC)	Nominal Current (mA)	Coil Resistance (Ω)±10%	Operate Voltage (VDC Max)	Release Voltage (VDC Min)
3	176.5	17	2.25	0.15
5	103.1	48.5	3.75	0.25
6	88.2	68	4.5	0.3
9	58.1	155	6.75	0.45
12	44.4	270	9	0.6
18	30	600	13.5	0.9
24	21.8	1100	18	1.2
48	10.9	4400	36	2.4

OMI-D(720mW,Standard)				
Nominal coil voltage(VDC)	Nominal Current (mA)	Coil Resistance (Ω)±10%	Operate Voltage (VDC Max)	Release Voltage (VDC Min)
3	230.8	13	2.1	0.15
5	138.9	36	3.5	0.25
6	123.7	48.5	4.2	0.3
9	78.3	115	6.3	0.45
12	60	200	8.4	0.6
18	40	450	12.6	0.9
24	29.3	820	16.8	1.2
48	14.5	3300	33.6	2.4

## CONTACT DATA

Contact arrangement	1 Form A, 1 Form C
Contact material	AgAlloy
Initial contact resistance	100mΩ max.@6VDC, 1A
Max switching voltage	277VAC/30VDC
Max switching Current	10A
Max switching power	2500VA/300W
Contact rating(Resistive Load)	NO/NC Load
	10A/5A@277VAC
	10A/5A@30VDC
Mechanical endurance	10,000,000 ops Min(no load)
Electrical endurance	100,000 ops Min(rated load)
Minimum load(reference value)	100mA@5VDC

## CHARACTERISTICS

Operate voltage	OMI-L	75% of nominal voltage or less
	OMI-D	70% of nominal voltage or less
Release voltage	10% of nominal voltage or more	
Operate time(@nominal voltage)	OMI-L	15mS max.
	OMI-D	15mS max
Release time(@nominal voltage)	8mS max	
Insulation resistance	1000MΩ min(at 500 VDC)	
Dielectric strength	Between coil and contacts	5000 VAC, 50/60 HZ for 1 min
	Between open contacts	1000 VAC, 50/60 HZ for 1 min
Surge voltage between coil and contacts	1000 V(1.2/50μs)	
Vibration resistance	Destruction	10 to 55 HZ, 1.5mm double amplitude
	Malfunction	10 to 55 HZ, 1.5mm double amplitude
Shock resistance	Destruction	1,000m/s(100G approximately)
	Malfunction	1,00m/s(10G approximately)
Ambient temperature	Operating:-40~+105°C(without icing or condensation)	
Ambient humidity	Operating:20% to 85% RH	
Terminal	Printed circuit terminals	
Enclosure(94V-0 Flammability Ratings)	SS : Sealed case type(RTII)	
	SH:Sealed case and ventilation hole sealed type(RTIII)	
Weight	Approx.13g	

## ORDERING INFORMATION

OMI - SS - 1 12 L M \* , 000

### 1.Product Family

### 2.Enclosure

SS = Sealed case type

SH = Sealed case and ventilation hole sealed type

### 3.Number of Poles

1=1 Pole

### 4.Rated Coil Voltage

03=3VDC 05=5VDC 06=6VDC 09=9VDC

12=12VDC 18=18VDC 24=24VDC 48=48VDC

### 5.Coil Power

D=Standard (720mW)

L=Sensitive (540mW)

### 6.Contact Arrangement

Blank=1 Form C (CO)

M=1 Form A (NO)

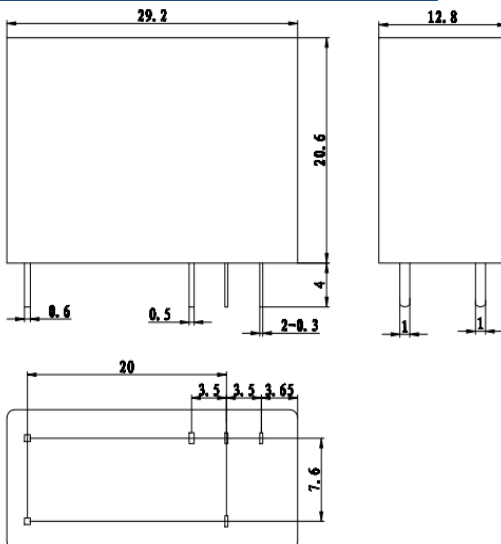
### 7.Contact Material

Blank=AgSnO,Use numbers or letters for special requirements

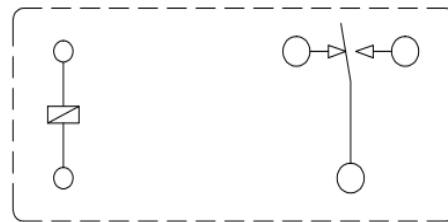
### 8.Additional numbers and/or letters

000=Standard model,Other Suffix=Customer model

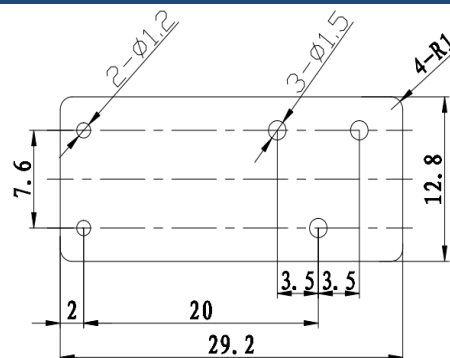
## OUTLINE DIMENSION



## WIRING DIAGRAMS(BOTTOM VIEWS)



## PC BOARD LAYOUTS(BOTTOM VIEWS)



**Remark:** 1) The reference tolerance in outline dimension.

outline dimension  $\leq 1\text{mm}$ , reference tolerance is  $\pm 0.02\text{mm}$ .

outline dimension  $> 1\text{mm}$  and  $\leq 5\text{mm}$ , reference tolerance is  $\pm 0.03\text{mm}$ .

outline dimension  $> 5\text{mm}$ , reference tolerance is  $\pm 0.05\text{mm}$ .

2) The reference tolerance for PC Board layout is  $\pm 0.1\text{mm}$ .