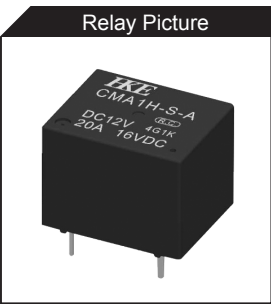
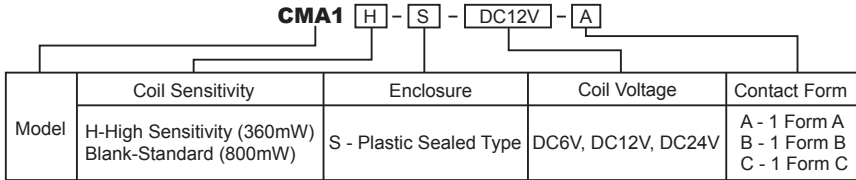




- ### Features
- Dimensions: 19.0×15.5×15.8(mm)
  - Miniature automotive relay
  - High Switching capacity 20A
  - Available in 3 contact configurations, 1 Form A, B and C
  - Applications: car alarm, central locking system, power windows, seat control, etc



## ORDERING INFORMATION



## SPECIFICATION

### CONTACT DATA

Contact Form	1 Form A, 1 Form B, 1 Form C	
Contact Material	Ag Alloy	
Contact Rating	15A 14VDC Resistive (B, C) 20A 14VDC Resistive (A)	
Contact Resistance	Max. 100mΩ (6VDC 1A)	
Load	Max. Switching Voltage	75VDC
	Max. Switching Current	20A
	Max. Switching Power	280W
Life	Electrical	100,000 operations at nominal load
	Mechanical	10,000,000 operations

### COIL DATA

Nominal Coil Power	0.8W, 0.36W
--------------------	-------------

### GENERAL DATA

Insulation Resistance		Min. 100MΩ 500VDC
Dielectric Strength	Between open contacts	750VAC, 1min
	Between coil and contacts	1,000VAC, 1min
Operate Time		Max. 15ms
Release Time		Max. 10ms
Operating Temperature		-40°C to +85°C
Humidity		35~95%RH, +40°C
Shock Resistance	Endurance	1,000m/s <sup>2</sup>
	Misoperation	100m/s <sup>2</sup>
Vibration Resistance	Endurance	10~55Hz, 1.5mm double amplitude
	Misoperation	10~55Hz, 1.5mm double amplitude
Weight		Approximately 10.0g

Note: Data shown are of initial value

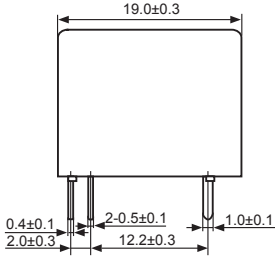
### COIL DATA

Ambient Temperature: 23°C

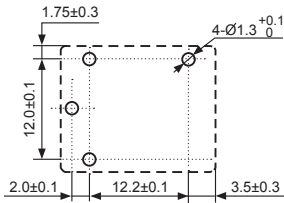
Model	Nominal Voltage VDC	Coil Resistance Ω±10%	Operate Voltage ≤VDC	Release Voltage ≥VDC	Coil Power W
CMA1-S- DC6V	6	45	3.6	0.60	0.8
CMA1-S-DC12V	12	180	7.2	1.20	
CMA1-S-DC24V	24	720	14.4	2.40	
CMA1H-S-DC12V	12	400	8.4	1.20	0.36
CMA1H-S-DC24V	24	1600	16.8	2.40	

OUTLINE, WIRING DIAGRAM, MOUNTING HOLE LAYOUT (UNIT: mm)

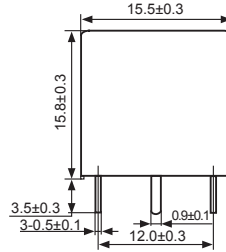
1 Form A



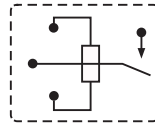
Mounting Hole Layout  
(Bottom View)



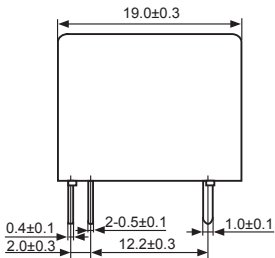
Outline



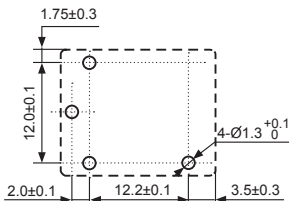
Wiring Diagram  
(Bottom View)



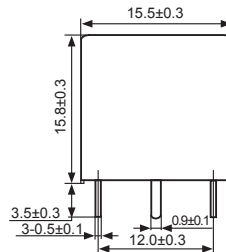
1 Form B



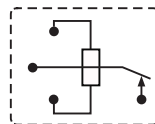
Mounting Hole Layout  
(Bottom View)



Outline

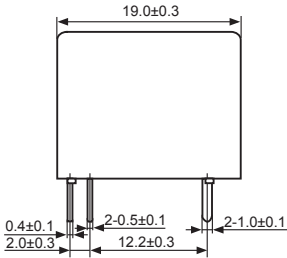


Wiring Diagram  
(Bottom View)

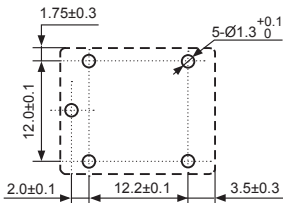


OUTLINE, WIRING DIAGRAM, MOUNTING HOLE LAYOUT (UNIT: mm)

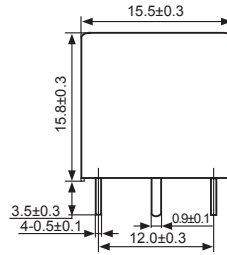
1 Form C



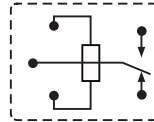
Mounting Hole Layout  
(Bottom View)



Outline

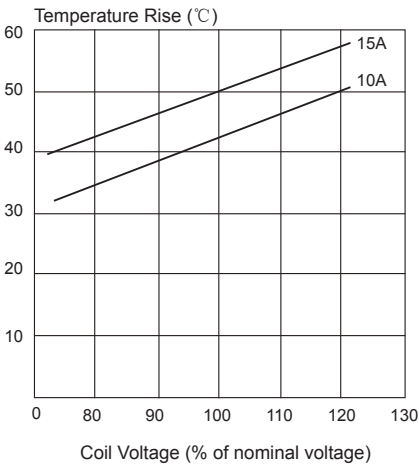


Wiring Diagram  
(Bottom View)



REFERENCE DATA

Coil Temperature Rise



Life Curve

