# **Automotive Relays**







#### **Features**

- Compact microminiature general purpose automotive relay
- Max. Continuous Current: 35A/10min.25A/1h
- Wire temperature Class H
- · Reflow soldering is available
- · Max. Inrush Current: 90A
- Dimensions: 15.5mm×12.2mm×13.9mm

### **Specifications**

Insulation Resistance		Min. 100MΩ 500V DC	
Dielectric Strength	Between open contacts	550V AC, 1min.	
	Between coil and contacts	550V AC, 1min.	
Operate Time		Max. 10ms	
Release Time		Max. 10ms	
Operating Temperature	Standard	-40°C to +85°C	
	Reflow	-40°C to +125°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 6.0g	

#### **Contact Data**

Contact Form		1 Form A and 1 Form C	
Contact Material		Ag Alloy	
Contact Resistance		Max. 100mΩ (6VDC 1A)	
	Min. Switching Voltage	16V DC	
l and	Max. Continuous Current	35A/10min. 25A/1h	
Load	Max. Switching Current	35A	
	Max. Inrush Current	90A	
Mechanical Life		10,000,000 operations	

### **Coil Data**

Nominal Coil Power	0.64W, 0.8W

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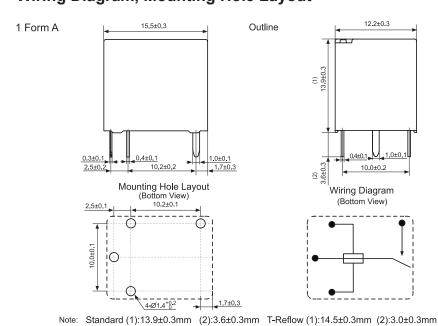
## **Contact Rating**

Load Type	12VDC	24VDC	Electrical Life
Resistive	NO/NC:20A/10A 14V DC	NO/NC:10A/5A 28V DC	200,000 operations
Motor	NO:25A(surge current)14V DC	NO:12.5A(surge current)28V DC	100,000 operations
Lamp	NO:8.8A(Inrush Current: 90A)14V DC	NO:4.5A(Inrush Current:45A) 28V DC	100,000 operations
Lamp	NO:6x21W 14V DC	NO:6x21W 28V DC	100,000 operations
Flash lamp	NO:3x21W 14V DC	NO:3x21W 28V DC	2000,000 operations

#### **Coil Data**

Part Number	Nominal Voltage V DC	Coil Resistance Ω±10%	Operate Voltage ≤V DC	Release Voltage ≥V DC	Coil Power W
MP-CMA5GH-S-DC12V-A	12	225	7.2	1.2	
MP-CMA5GH-S-DC24V-A	24	900	14.4	2.4	0.64
MP-CMA5GH-S-DC12V-C	12	225	7.2	1.2	0.64
MP-CMA5GH-S-DC24V-C	24	900	14.4	2.4	
MP-CMA5G-S-DC12V-A	12	180	7.2	1.2	
MP-CMA5G-S-DC24V-A	24	720	14.4	2.4	0.8
MP-CMA5G-S-DC12V-C	12	180	7.2	1.2	
MP-CMA5G-S-DC24V-C	24	720	14.4	2.4	

# Wiring Diagram, Mounting Hole Layout



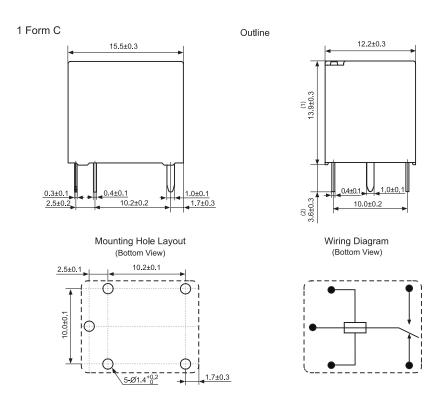
Dimensions : Millimetres

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Note: Standard (1):13.9±0.3mm (2):3.6±0.3mm T-Reflow (1):14.5±0.3mm (2):3.0±0.3mm

### **Part Number Table**

Description	Part Number
Relay PCB NO 12V DC 0.64W	MP-CMA5GH-S-DC12V-A
Relay PCB NO 24V DC 0.64W	MP-CMA5GH-S-DC24V-A
Relay PCB CO 12V DC 0.64W	MP-CMA5GH-S-DC12V-C
Relay PCB CO 24V DC 0.64W	MP-CMA5GH-S-DC24V-C
Relay PCB NO 12V DC 0.8W	MP-CMA5G-S-DC12V-A
Relay PCB NO 24V DC 0.8W	MP-CMA5G-S-DC24V-A
Relay PCB CO 12V DC 0.8W	MP-CMA5G-S-DC12V-C
Relay PCB CO 24V DC 0.8W	MP-CMA5G-S-DC24V-C

Dimensions: Millimetres

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