

## ■ Characteristics

Item	Classification	Standard model
Contact resistance *1		100 mΩ max.
Operate time		10 ms max.
Release time		5 ms max.
Insulation resistance *2		1,000 MΩ min.
Dielectric strength	Between coil and contacts	4,000 VAC, 50/60 Hz for 1 min
	Between contacts of the same polarity	1,000 VAC, 50/60 Hz for 1 min
Impulse withstand voltage (between coil and contacts)		8 kV (1.2 x 50 μs)
Vibration resistance	Destruction	10 to 55 to 10 Hz, 0.75 mm single amplitude (1.5 mm double amplitude)
	Malfunction	10 to 55 to 10 Hz, 0.75 mm single amplitude (1.5 mm double amplitude)
Shock resistance	Destruction	1,000 m/s <sup>2</sup>
	Malfunction	100 m/s <sup>2</sup>
Durability	Mechanical	10,000,000 operations (18,000 operations per hour)
	Electrical	<ul style="list-style-type: none"> <li>• NO                             <ul style="list-style-type: none"> <li>25,000 operations: 10 A at 250 VAC resistive load (operation: ON for 1 sec, OFF for 3 sec) &lt;High-capacity type&gt;</li> <li>50,000 operations: 10 A at 125 VAC resistive load (operation: ON for 1 sec, OFF for 3 sec)</li> <li>200,000 operations: 3 A at 125 VAC resistive load (operation: ON for 1 sec, OFF for 1 sec)</li> <li>50,000 operations: 5 A at 250 VAC resistive load (operation: ON for 1 sec, OFF for 1 sec)</li> <li>100,000 operations: 3 A at 250 VAC resistive load (operation: ON for 1 sec, OFF for 1 sec)</li> <li>100,000 operations: 5 A at 30 VDC resistive load (operation: ON for 1 sec, OFF for 1 sec)</li> </ul> </li> <li>• NC                             <ul style="list-style-type: none"> <li>200,000 operations: 3 A at 125 VAC resistive load (operation: ON for 1 sec, OFF for 1 sec)</li> <li>100,000 operations: 3 A at 250 VAC resistive load (operation: ON for 1 sec, OFF for 1 sec)</li> <li>100,000 operations: 3 A at 30 VDC resistive load (operation: ON for 1 sec, OFF for 1 sec)</li> </ul> </li> </ul>
Failure rate (P level) (reference *3)		10 mA at 5 VDC
Ambient operating temperature		-40°C to 105°C (with no icing or condensation) -40°C to 85°C (with no icing or condensation) <High-capacity type>
Ambient operating humidity		5% to 85%
Weight		Approx. 6.5 g

Note. Note. Values in the above table are the initial values at 23°C.

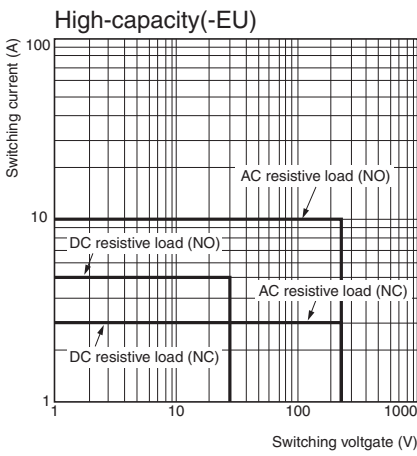
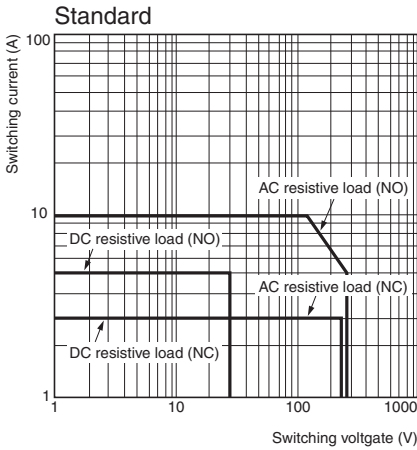
\*1. The contact resistance is possible with 1 A applied at 5 VDC using a fall-of-potential method.

\*2. Testing conditions: The insulation resistance was measured with a 500 VDC megohmmeter at the same locations as the dielectric strength was measured.

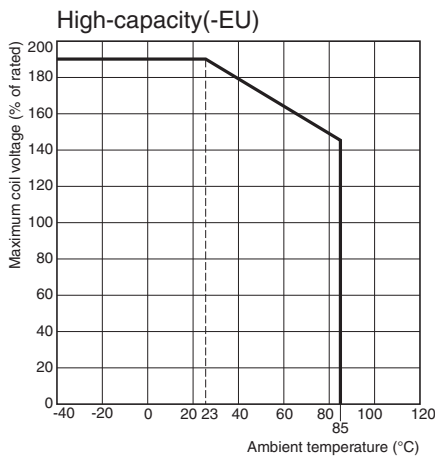
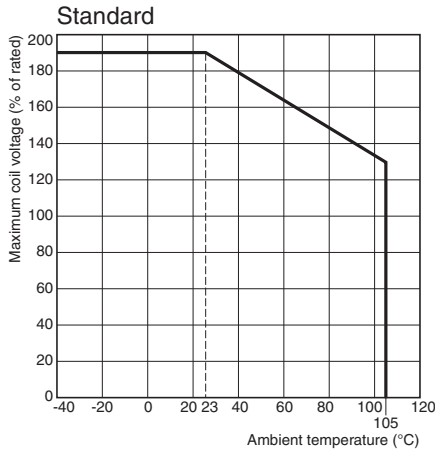
\*3. This value was measured at a switching frequency of 120 operations/min.

## Engineering Data

### Maximum Switching Capacity

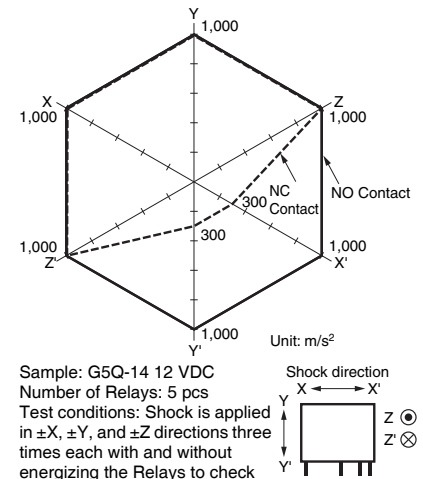


### Ambient Temperature VS. Maximum Coil Voltage



Note. The Maximum coil voltage refers to the maximum value in a varying range of operating power voltage, not a continuous voltage.

### Shock Malfunction

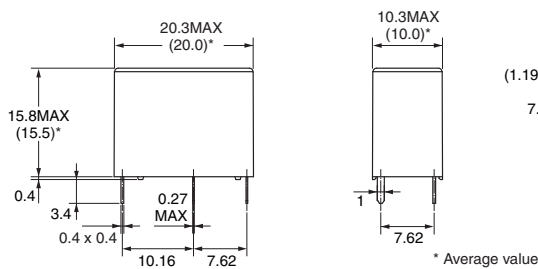


Sample: G5Q-14 12 VDC  
 Number of Relays: 5 pcs  
 Test conditions: Shock is applied in  $\pm X$ ,  $\pm Y$ , and  $\pm Z$  directions three times each with and without energizing the Relays to check the number of malfunctions.  
 The energized voltage is 100% of the rated voltage.  
 Requirement: None malfunction  
 100 m/s<sup>2</sup>

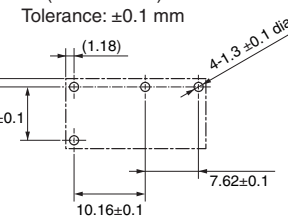
## Dimensions

(Unit: mm)

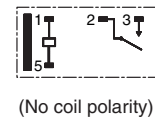
### G5Q-1A(4)(-EU)(-HA)



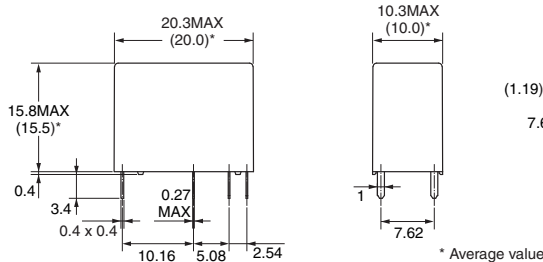
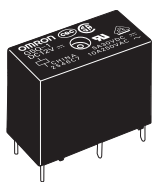
#### PCB Mounting Holes (Bottom View)



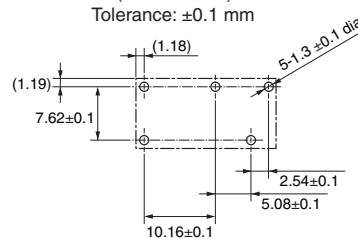
#### Terminal Arrangement/ Internal Connections (Bottom View)



### G5Q-1(4)(-EU)(-HA)(-PW)



#### PCB Mounting Holes (Bottom View)



#### Terminal Arrangement/ Internal Connections (Bottom View)

