

## 2. Specifications

Characteristics	Item	Specifications			
		Standard type		High capacity type	
Contact	Arrangement	1 Form A		1 Form C	
	Contact resistance (Initial)	Max. 200 mΩ (Measured after operating 5 times, 6V DC 1A)		Max. 100 mΩ (By voltage drop 6V DC 1A)	
	Contact voltage drop	Max. 0.2 V DC (at 10 A 12 VDC)			
	Contact material	Ag alloy (Cadmium free)			
Rating	Nominal switching capacity (resistive load)	10A 16V DC		15A 16V DC	
	Max. carrying current <sup>3</sup>	25 A (at 20°C 68°F for 2 minutes), 15 A (at 20°C 68°F for 1 hour), 20 A (at 85°C 185°F for 2 minutes), 10 A (at 85°C 185°F for 1 hour)			
	Max. switching power (resistive load)	160 mW		240 W	
	Max. switching voltage	16V DC			
	Max. switching current	10 A		15 A (Max. 10 A at 85°C 185°F)	
	Nominal operating power	640 mW			
	Min. switching capacity (resistive load) <sup>1</sup>	1 A 12 V DC			
Electrical characteristics	Insulation resistance (Initial)	Min. 100 MΩ (at 500V DC)			
	Breakdown voltage (Initial)	Between open contacts	750 Vrms for 1 min. (Detection current: 10mA)		
		Between contacts and coil	1,500 Vrms for 1 min. (Detection current: 10mA)		
	Operate time (at 20°C 68°F)	Max. 10ms (at nominal voltage) (excluding contact bounce time)			
Release time (at 20°C 68°F)	Max. 10ms (at nominal voltage) (excluding contact bounce time, without diode)				
Mechanical characteristics	Shock resistance	Functional	Min. 98 m/s <sup>2</sup> {10G} (Half-wave pulse of sine wave: 11ms; detection time: 10μs)		
		Destructive	Min. 980 m/s <sup>2</sup> {100G} (Half-wave pulse of sine wave: 6ms)		
	Vibration resistance	Functional	10 Hz to 55 Hz, at double amplitude of 1.6 mm (Detection time: 10μs)		
		Destructive	10 Hz to 55 Hz, at double amplitude of 2.0 mm		
Expected life	Electrical (at nominal switching capacity)	Min. 10 <sup>5</sup> (at 15 cpm)		N.O.: Min. 10 <sup>6</sup> (at 15 cpm), N.C.: Min. 5 × 10 <sup>4</sup> (at 15 cpm)	
	Mechanical	Min. 10 <sup>7</sup> (at 180 cpm)			
Conditions	Conditions for operation, transport and storage <sup>2</sup>	Ambient temperature: -40°C to +85°C -40°F to +185°F, Humidity: 5% R.H. to 85% R.H. (Not freezing and condensing at low temperature)			
	Max. operating speed	15 cps. (at nominal switching capacity)			

Notes: \*1. This value can change due to the switching frequency, environmental conditions, and desired reliability level, therefore it is recommended to check this with the actual load.

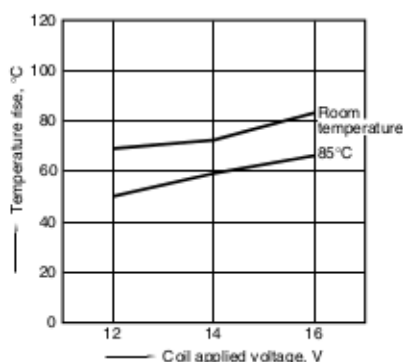
\*2. The upper operation ambient temperature limit is the maximum temperature that can satisfy the coil temperature rise value. Please refer to "Usage ambient condition" in CAUTIONS FOR USE OF AUTOMOTIVE RELAYS.

\*3. Depends on connection conditions. Also, this does not guarantee repeated switching. We recommend that you confirm operation under actual conditions.

## REFERENCE DATA

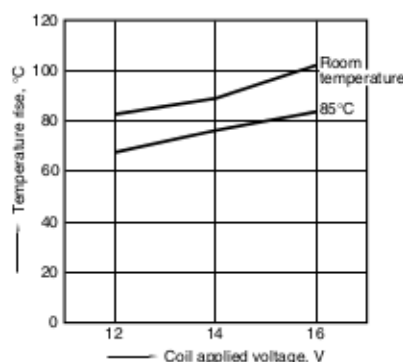
### 1-(1). Coil temperature rise (10A)

Measured portion: Inside the coil  
Contact carrying current, 10A  
Ambient temperature: Room temperature, 85°C  
185°F



### 1-(2). Coil temperature rise (15A)

Measured portion: Inside the coil  
Contact carrying current, 15A  
Ambient temperature: Room temperature, 85°C  
185°F



### 2. Max. switching capability (Resistive load, initial)

