

Automotive Relay

SAF7-Series



Features

- Maximum continuous current 30A
- Maximum closing current 100A
- Ambient temperature up to 125°C
- H(180°C)insulation Class
- 250 °C reflow soldering
- Comly with RoHS, ELV standards

Typical Application

- Defogger, ignition, seat heater, power windows, etc.

Contact Data

Maximum continuous current	41A 30min / 30A Continuous (23°C) 38A 30min / 25A Continuous (85°C) 35A 30min / 15A Continuous (125°C)
Max. switching current	Making : 100A (peak lamp load inrush current, 14VDC) Breaking: 30A (resistive, 14VDC)
Max. switching voltage	16VDC

Parameters Data

Contact material	Silver alloy
Dropping Voltage of Contacts	250mV Max (at 10A)
Operate time (at nominal volt)	10msec.Max.
Release time (at nominal volt)	10msec.Max.
Initial insulation resistance	500MΩ Min (500VDC)
Initial dielectric strength	Between open contacts: 500VAC, 50/60Hz 1min.
	Between coil and contact: 500VAC, 50/60Hz 1min.
Shock resistance	Functional: 100m/s ²
	Destructive: 1000m/s ²
Vibration resistance	Functional: 10-100Hz, 44.1m/s ²
	Destructive: 10-500Hz, 44.1m/s ² 2h
Mechanical	1×10 ⁷ ops
Ambient temperature	-40°C to +125°C
Weight	Approx 10g

Coil Data

Nominal voltage VDC	Pick-up voltage VDC			Drop-out voltage VDC			Drop-out voltage VDC	Coil resistance ±10%(Ω)	Coil resistance (W)
12	23°C	85°C	125°C	23°C	85°C	125°C	16	23°C	23°C



Contact Performance

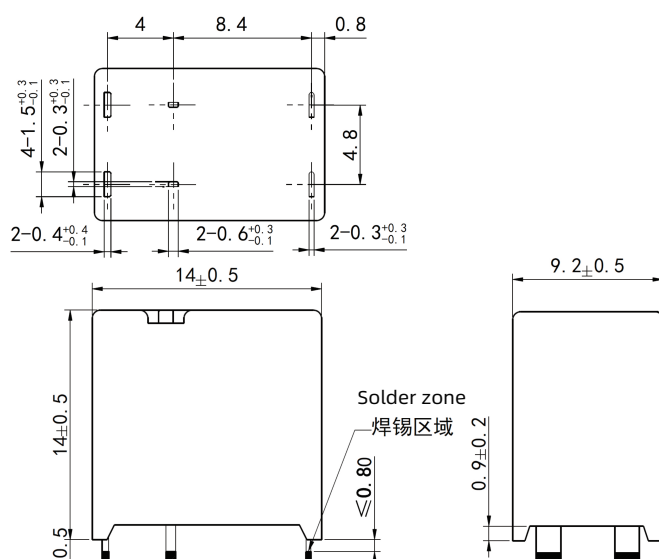
Contact Voltage	Rating type		Contact rating current (A)	Duty factor		Endurance (cycles)	Material	Test ambient temperature
			1A	Marking (s)	Breaking (s)			
14VDC	Resistive Load	On	30	2	2	1x10 ⁵	AgSnO ₂	23℃
		Off	30					
	Inductive Load L=0.5mH	On	40	2	2	1x10 ⁵	AgSnO ₂	-40℃~125℃
		Off	20					
	Lamp load	On	100	2	2	1x10 ⁵	AgSnO ₂	
		Off	10					

Ordering Information

SAF7	-S	-1	12	D	M	-XX	
							Special Parameter: Nil Standard type ,Letter or number-Special requirement
							Contact Form: M-Form A; Nil-Form C
							Coil Power: D- 0.9W ; L-0.48W
							Coil Voltage(VDC): 12
							Number of Poles: 1-1Poles ; 2-2Poles
							Protective Construction: S-Flux proofed; SH-sealed type washable
							Type Designation: SAF7

Outline Dimensions Wiring Diagram , Mounting Holes (unit:mm)

Outline Dimnsions



Unless otherwise specified

If dimension < 1mm, tolerance: $\pm 0.2\text{mm}$;

If dimension 1~5mm, tolerance: $\pm 0.3\text{mm}$;

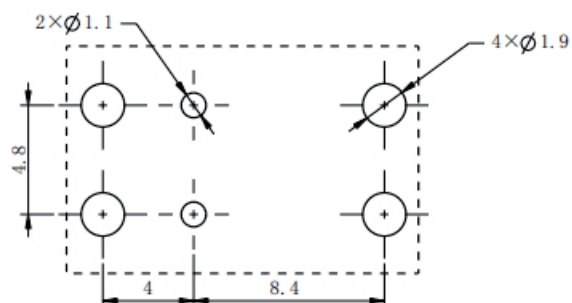
If dimension > 5mm, tolerance: $\pm 0.4\text{mm}$;

Note: 1. Extended terminal dimension is dimension before soldering.

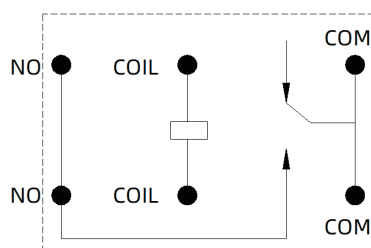
2. Tolerance of mounting holes : $\pm 0.1\text{mm}$.



Mounting dimensions (bottom view)



Wiring Diagram (bottom view)



Statement:

This product specification is for reference only, subject to change without prior notice. We could not evaluate all test conditions for every possible application, thus customers should be in a right position to choose suitable products for their own application. If in doubt, please contact Sanyou for more technical support. However, it's the customer's responsibility to determine which product should be used.

