



Miniature Automotive Relay

SARK

Features:

- Subcompact car relays
- High power automobile relay
- Max. switching current: 30A.
- Sealed type available
- Both single and dual relays available

Typical Applications

- Central door lock, skylight control, automatic doors and Windows, mirror adjustment, seat adjustment

Contact Capacity

Nominal switching capacity (res. load)	NO/NC: 25A /20A 14VDC
Max. switching current	30A
Max. switching voltage	16VDC
Max. switching power	420W

Contact parameter

Contact rating voltage	Rating type		contact rating current(A)		duty factor		endurance (cycles)	contact material	test ambient temperature
			NO	NC	on S	off S			
14VDC	resistance	on	20	—	1	5	3X10 ⁵	AgSnO ₂	23°C
		off	20	—					
	wiper motor L=1.0mH	on	25 ⁽¹⁾	—	0.2	2	3X10 ⁵	AgSnO ₂	
		off	5	—					
	motor locking L=0.77mH	on	20	—	0.2	2	1X10 ⁵	AgSnO ₂	
		off	20	—					
	lamp	on	40 ⁽²⁾	—	2	2	1X10 ⁵	AgSnO ₂	
		off	10	—					
	flashlight	on	3X21W	—	0.365	0.365	1X10 ⁶	AgSnO ₂	
		off							

notes:

(1) Initial peak impulse current of motor

(2) The first peak impulse current of the initial cold filament

(3) If the usage load conditions are not consistent with this table,

please provide the corresponding detailed usage conditions to SANYOU for more support.

Characteristic Data

Contact material	Silver alloy	
Dropping Voltage of Contacts	200mv/at 10A (max)	
Operate time (at nominal volt.)	4msec. Max.	
Release time (at nominal volt.)	4msec. Max.	
Initial insulation resistance	100MΩ Min.(500VDC)	
Initial dielectric strength	Between open contacts: 500VAC, 50/60Hz 1min.	
	Between coil and contact: 500VAC, 50/60 Hz 1min.	
Vibration resistance	10Hz-500Hz 58.8m/s ²	
Shock resistance	NO 30G / NC 5G	
Endurance (operations)	Mechanical(at 10,800ops./h)	1X10 ⁷ cycles
	Electrical	See the contact parameters
Ambient temperature	-40°C~+105°C (No condensation)	
weight	Approx.4.0g (single relay); Approx.8.0g (dual realy)	

Coil Data (at 20°C)

Nominal voltage (VDC)	Nomina operating current ±10% (mA)	Coil resistance ±10% (Ω)	Max. Allowable voltage		Operate voltage (Max.)	Release voltage (Min.)	Nominal operating Nominal (W)
			23°C	85°C			
5	110	45	11	65	2.9	0.6	0.55W
6	95.24	63	13.2	7.8	3.5	0.8	
9	61.11	147	19.8	12	5.2	1.1	
12	47.24	254	26	16	6.9	1.5	
24	23.62	1,016	53	31	15.6	3.0	
12	66.30	181	22	13	6.9	1.5	0.80W

Ordering Information

SARK -S -1 12 D M XX

Speciality Symbols: Nil-Standard, Number: Special customer requirements

Contact form: M-form A, Nil--Form C

Coil power: D-0.9W; L-0.48W (Excluding Type 2A)

Coil Voltage(VDC): 05, 06, 09, 12, 24,

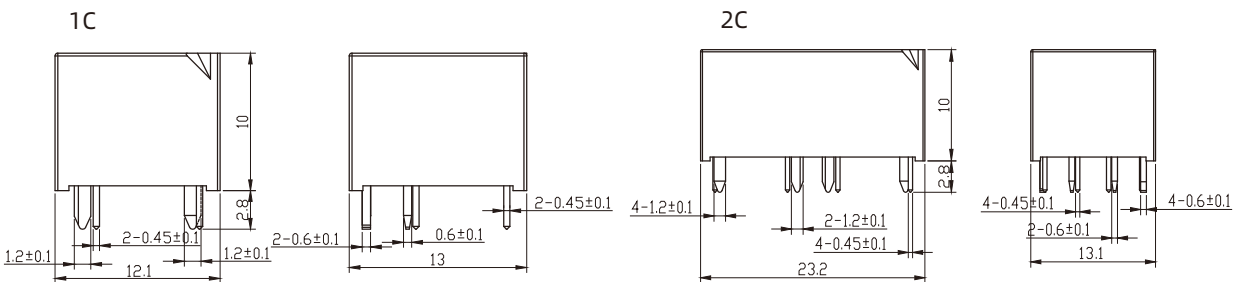
Main contact arrangement: 1-1 poles, 2-2 poles

Package form: S-Flux-proof, SH-Sealed type

Type: SARK

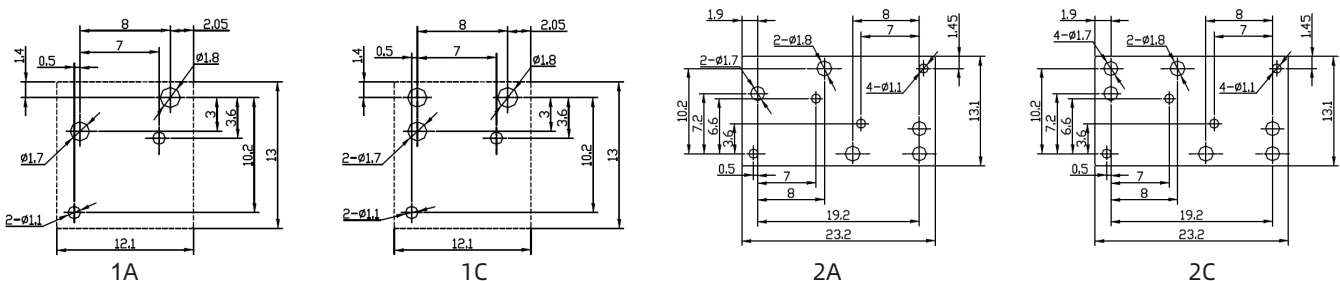
Outline Dimensions, Wiring Diagram, P.C. Board Layout (unit:mm)

Outline Dimensions,

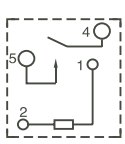


Unless otherwise specified:
 If dimension < 1mm, tolerance: ±0.2mm;
 If dimension 1~5mm, tolerance: ±0.3mm;
 If dimension > 5mm, tolerance: ±0.4mm.
 Note: 1. Extended terminal dimension is dimension before soldering.
 2. Tolerance of P.C.B. layout: ±0.1mm.

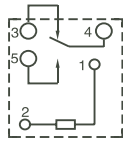
P.C.B. Layout (bottom view)



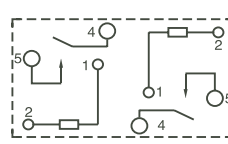
Wiring Diagram (bottom view)



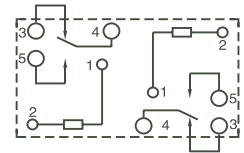
1A



1C



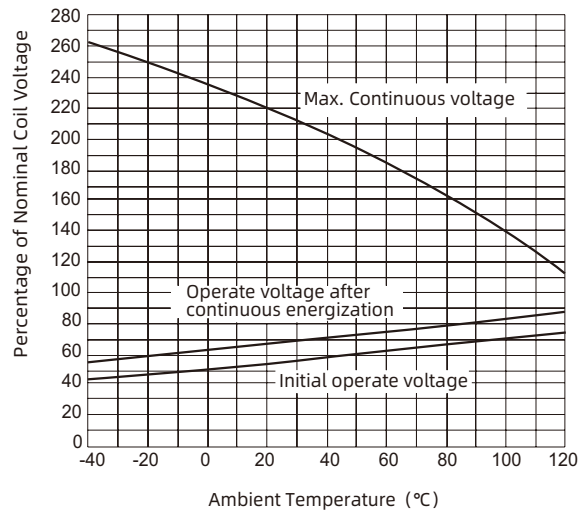
2A



2C

Characteristic Curves

Coil continuous energization voltage range



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.