SANYOU High Power Automotive Relay SARB V2.5

Features:

- Miniature relay with high power: max. switching capability 40A.
- Low coil power consumption with excellent performance.
- Both sealed and open types available.
- Class H coil available.

Typical Applications:

- Automotive control switching box, automation, etc.



Contact Data

Contact arrangement	1 Form A/1 Form C
Contact material	silver alloy
Contact resistance	100mΩ max
Contact load	40A 14VDC 40A 14VDC(NO)/30A 14VDC(NC)
Max. Contact Voltage	14VDC
Max. Contact Current	40A
Operate time (at nominal volt.)	≤10ms
Release time (at nominal volt.)	≤10ms
Electrical endurance	
resistive load:14VDC, 40A	1×10^5ops

Note:coil voltage 12VDC, frequency 2s on:2s off, room temperature

Coil Data

Nominal voltage (VDC)	Nominal operating current ±10% (A)	Coil resistance ±10% (Ω)	Max. Allowable voltage (VDC)	Operate voltage (VDC)	Release voltage (VDC)	Nominal operating power (W)
5	0.32	15.6	150% Nominal voltage	60% Nominal voltage	10% Nominal voltage	1.6
6	0.267	22.5				
9	0.18	50				
12	0.133	90				
18	0.089	202				
36	0.044	810				
24	0.067	360				
48	0.033	1440				

Note:To prevent overheating and burnout, the coil should not be continuously subjected to a voltage greater than the maximum allowable voltage.

Insulation Data

Insulation resistance	100MΩ (500VDC)
Initial dielectric strength	
between open contacts:	500VAC, 50/60Hz 1min.
between coil and contact:	500VAC, 50/60Hz 1min.

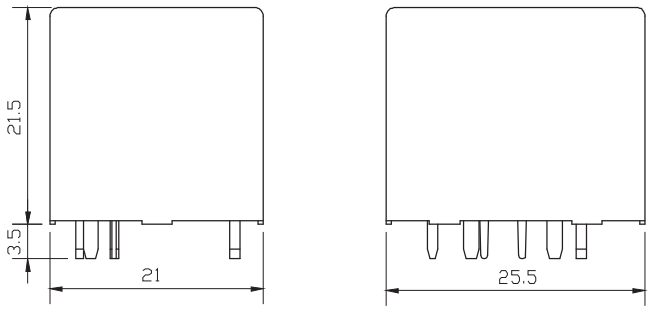
Other Data

Shock resistance	Functional	20G
	Destructive	100G
Vibration resistance		
	Functional	10~55Hz 1.5mm DA
	Destructive	10~55Hz 1.5mm DA
Mechanical endurance		1×10^7ops
Ambient temperature		-40℃~+125℃ (no condensation)
Humidity		5%~85%RH
Weight		Open type: Approx.16.0 g Sealed type: Approx. 20.5 g

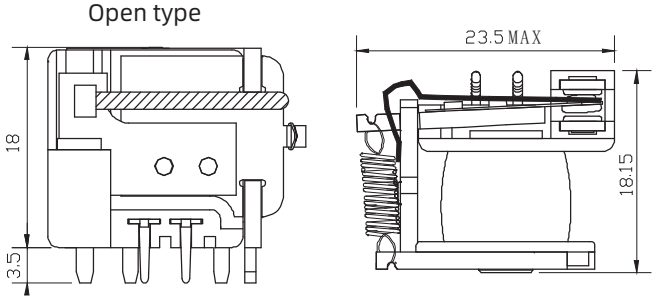
Note: The above parameters are initial values

Dimensions

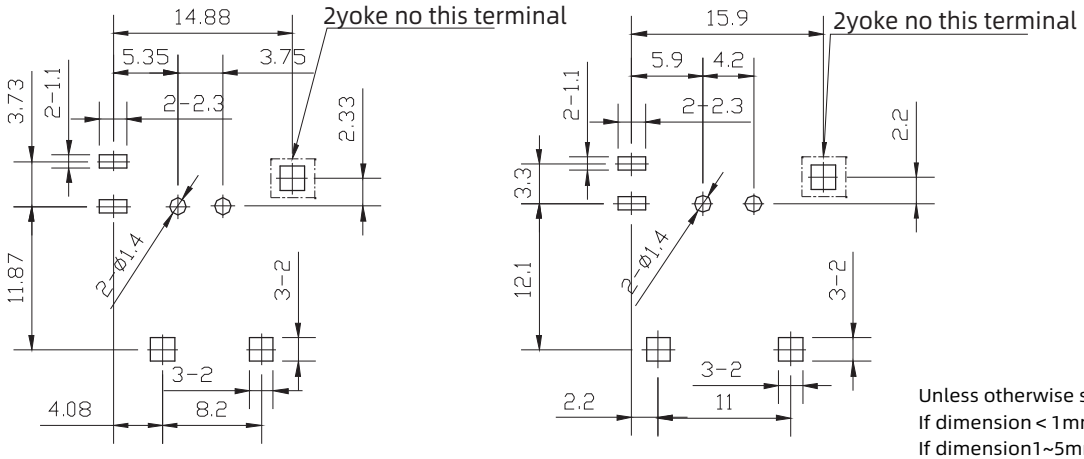
Sealed type



Open type



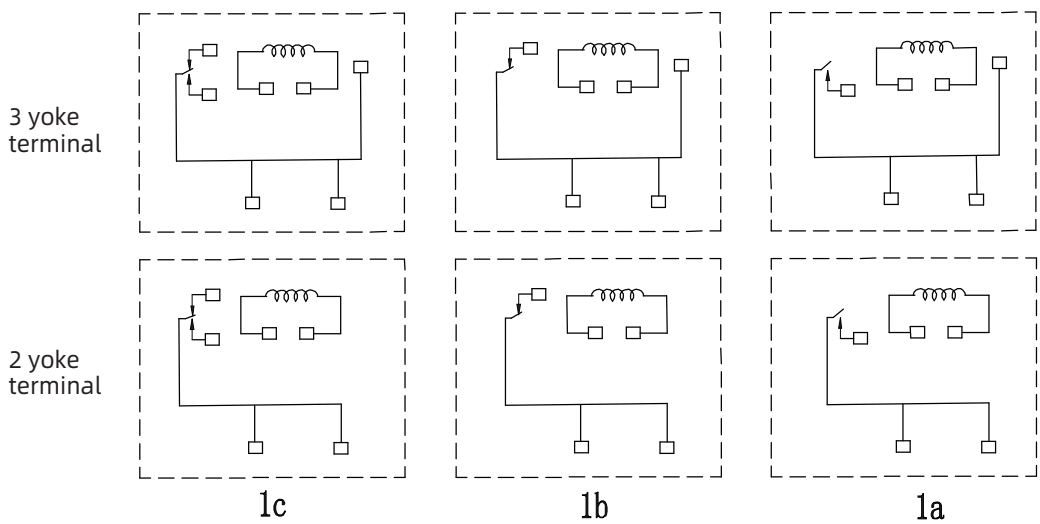
Wiring diagram (bottom view)



Unless otherwise specified:
If dimension < 1mm, tolerance: ±0.2mm;
If dimension1~5mm, tolerance: ±0.3mm;
If dimension > 5mm, tolerance: ±0.4mm;

Note:
1.Extended terminal dimension is dimension before soldering
2.Tolerance of mounting holes:±0.1mm

Wiring Diagrams



Product Code Structure

SARB	-S	-1	12	D	M	4	U	1	-XX

Special Parameter: Nil-Standard type
Letter or number-Special requirement

Yoke Terminal Arrangement: Nil-3 yoke terminal
1-2 yoke terminal

TerminelType:U-USA, E-European

Contact Material: Nil-Standard, 4-3 compounds (1)

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

The power consumption of the coil:D-1.6W

Coil specification(VDC): 05, 06, 09, 12, 18, 24, 36, 48

Number of Poles:1-1 Pole

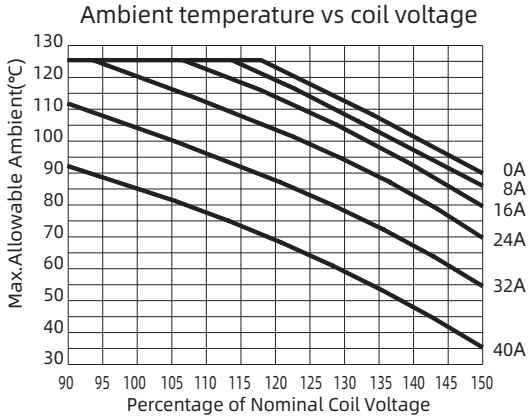
Protective Construction:Nil-Open type, S-Flux proofed
SH-Sealed type washable

Type Designation:SARB

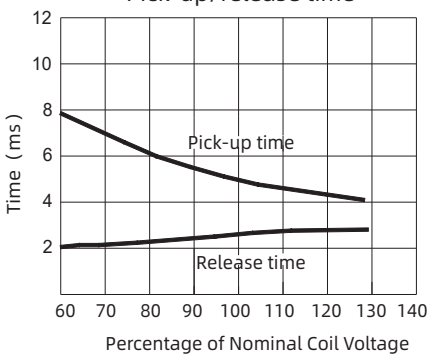
Note: (1)3compounds only for CO type (Form C)

Performance curve

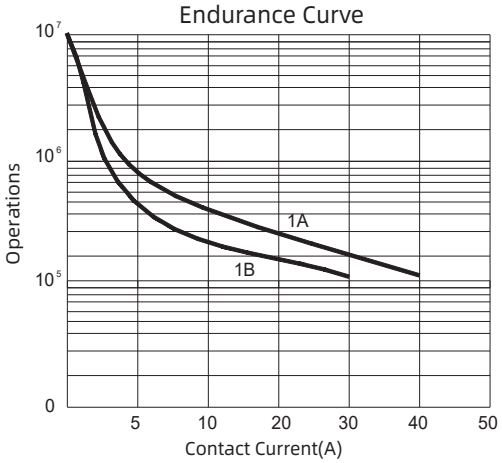
Ambient temperature vs coil voltage



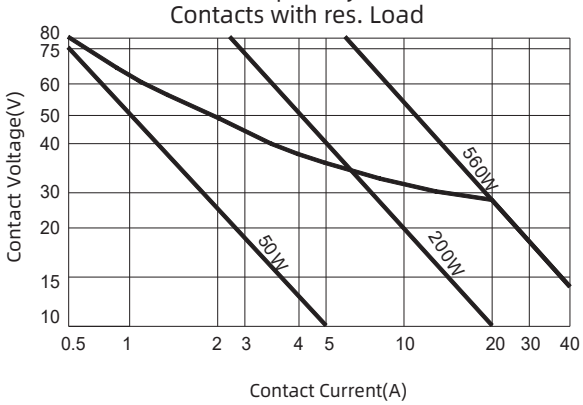
Pick-up/release time



Endurance Curve



Anti-arc capability of N.O.
Contacts with res. Load



Disclaimer:

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.

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