

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.

Contact Capacity

Model	SARB -DM	SARB-D
Nominal switching capacity (res. load)	40A 14VDC	NO : 40A 14VDC NC : 30A 14VDC
Max. switching current	40A	40A
Max. switching voltage	30VDC	30VDC
Max. switching power	560W	560W

Characteristic Data

Contact material	Silver alloy	
Initial contact resistance (at 6VDC 1A)	100mΩ Max.	
Operate time (at nominal volt.)	10msec. Max.	
Release time (at nominal volt.)	10msec. Max.	
Initial insulation resistance	100MΩ Min.(DC500V)	
Initial dielectric strength	Between open contacts : AC500V , 50/60Hz 1Min.	
	Between coil and contact : AC500V , 50/60Hz 1Min.	
Vibration resistance	Functional	10 ~ 55Hz at double amplitude of 1.5 mm
	Destructive	10 ~ 55Hz at double amplitude of 1.5 mm
Shock resistance	Functional	20G Min.
	Destructive	100G Min.
Endurance (operations)	Mechanical (at 10,800 ops./h)	10,000,000
	Electrical (at 600 ops./h)	100,000
Ambient temperature	-40°C ~ +125°C (no condensation)	
Unit weight	Open type: Approx.16.0 g ; Sealed type: Approx. 20.5 g	

Coil Data (at 20°C)

Nominal voltage (VDC)	Nominal operating current ±10% (mA)	Coil resistance ±10% (Ω)	Max. allowable voltage	Pick-up voltage (Max.)	Drop-out voltage (Min.)	Nominal operating power
5	320	15.6	150 % of nominal voltage	58 % of nominal voltage	10% of nominal voltage	Approx. 1.60W
6	266.67	22.5				
9	180.00	50				
12	133.33	90				
18	89.11	202				
36	44.44	810				
24	66.67	360				
48	33.33	1,440				

Ordering Information

Nomenclature										
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		
								Terminal Arrangement : U-USA, E-European		
								Contact Material : Nil-Standard, 4-3 compounds ⁽¹⁾		
								Contact Form : Nil-Form C, B-Form B, M-Form A		
								Coil Power : D-1.6W		
								Coil Voltage (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										

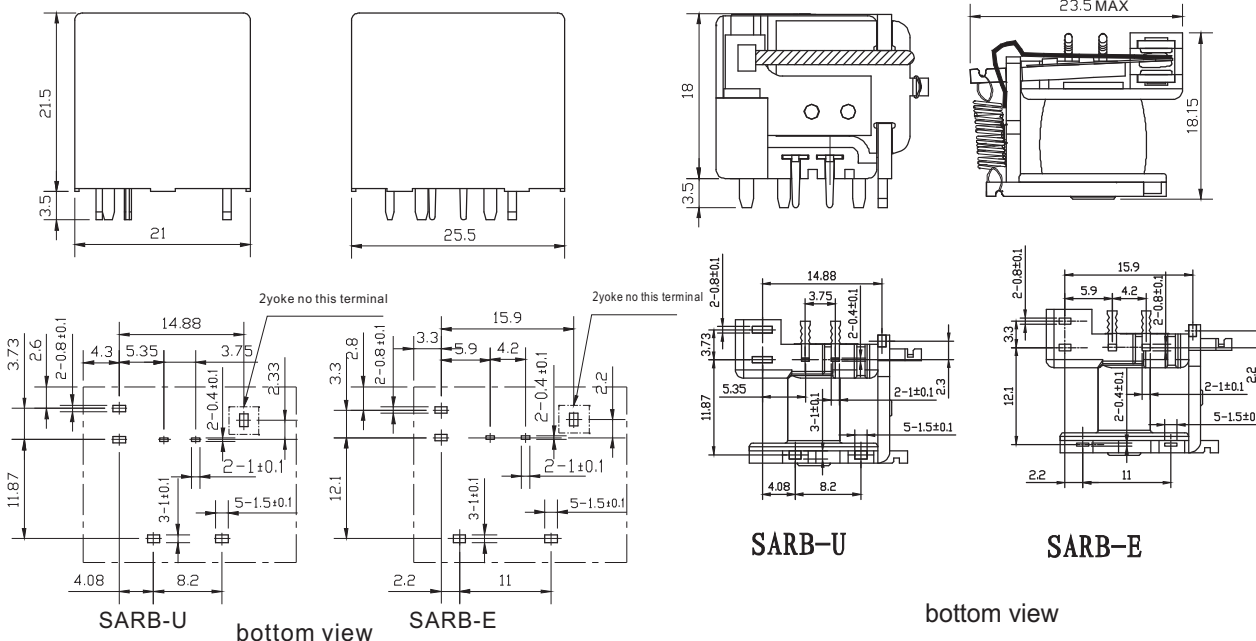
note : (1)3compounds only for CO type (Form C)

Outline Dimensions, Wiring Diagram, P.C.

Board Layout (unit : mm)

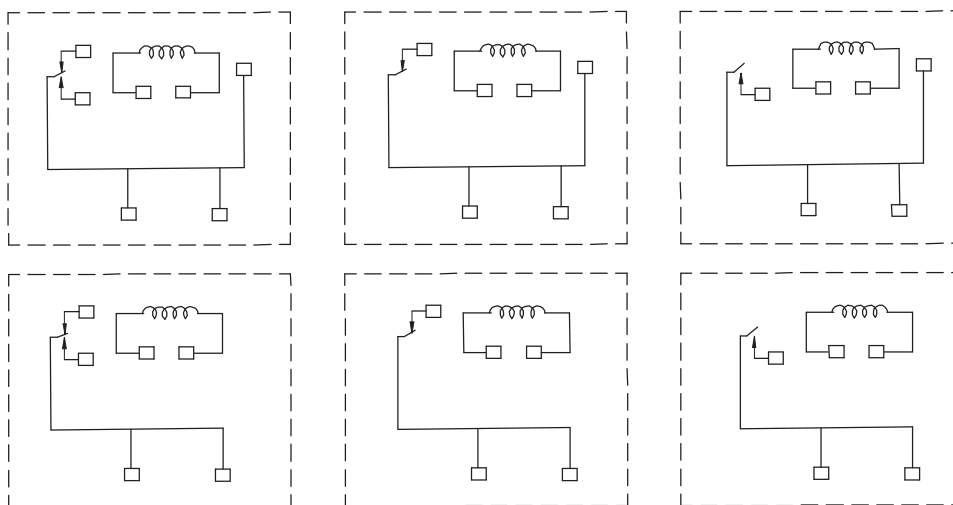
Sealed type

Open type

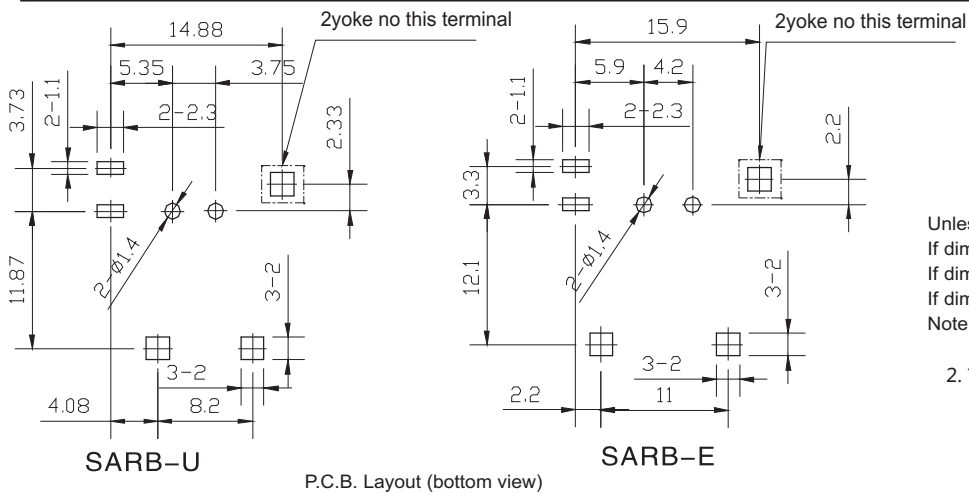


3 yoke terminal

2 yoke terminal



Wiring Diagram (bottom view)

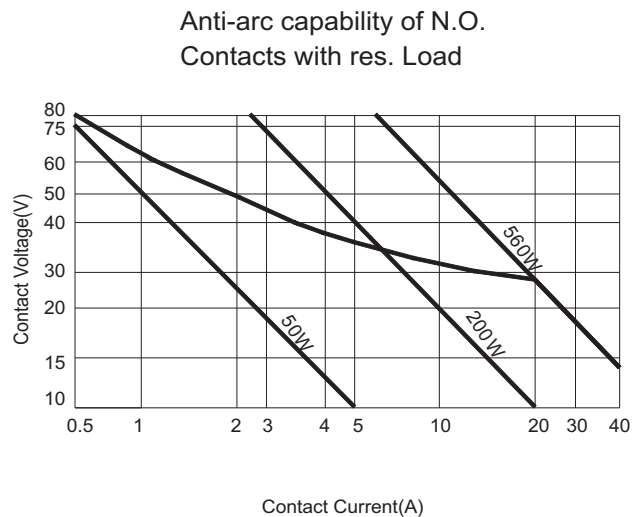
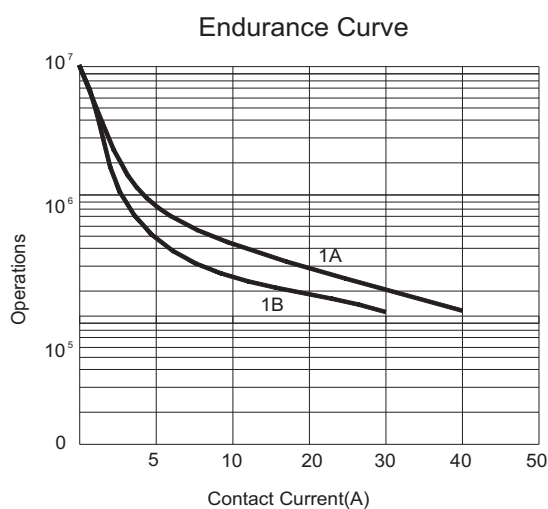
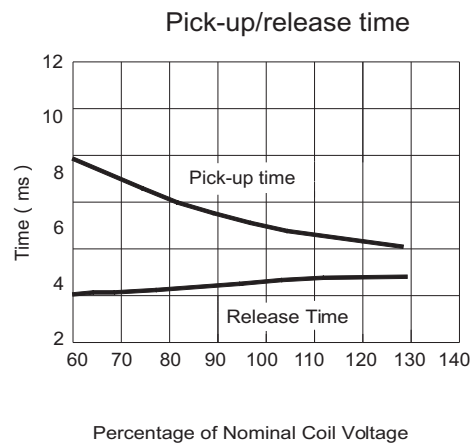
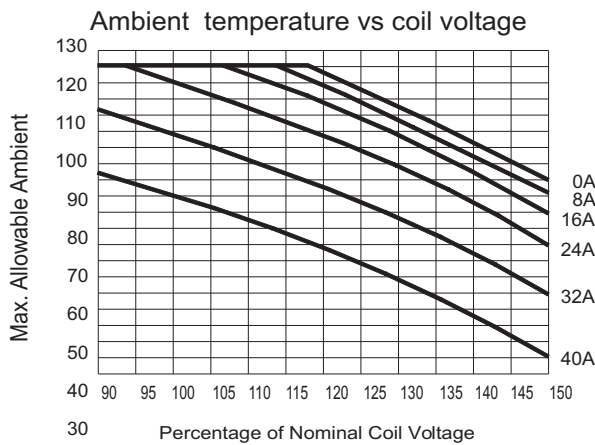


Unless otherwise specified :
 If dimension < 1mm, tolerance : $\pm 0.2\text{mm}$;
 If dimension 1~5mm, tolerance : $\pm 0.3\text{mm}$;
 If dimension > 5mm, tolerance : $\pm 0.4\text{mm}$.
 Note : 1. Extended terminal dimension is dimension before soldering.
 2. Tolerance of P.C.B. layout : $\pm 0.1\text{mm}$.

Typical Applications

- Automotive control switching box, automation, etc.

Characteristic Curves



Disclaimer:

This datasheet is the customers' reference. All the specification are subject to change without notice. We could not evaluate all the performance and all the parameters for every possible application. Thus the user should in a right position to choose the suitable product for their own application. If there is any query, please contact Sanyou for the technical service. However it is the user's responsibility to determine which product should be used only.