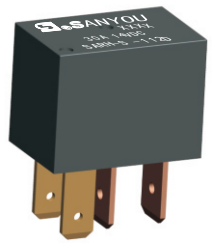
SANYOU RELAYS
Relays for advanced technology

High Power Automotive Relay

SARH-Series



Features

- ●30A switching capability
- ●1 Form A contact configuration available
- ●Resistance or diode paralleled type available
- ●Quick connect terminal
- ●Compare to same type product,overall height sharply falling

Contact Capacity

Model	SARH-DM
Nominal switching capacity(res,load)	30A 14VDC / 20A 30VDC
Max.switching current	30A
Max.switching voltage	30VDC
Max.switching power	280W

Contact Data

Contact rating voltage	Load type		contact rating current(A) A Form 1-1pole	on/off	endurance (cycles)	contact material
14VDC	resistive	on	30	2S	$1X10^5$	$AgSnO_2$
		off	30	2S		
	general	on	40	2S	$1X10^5$	$AgSnO_2$
		off	20	2S		
	lamp load	on	100	2S	$1X10^5$	$AgSnO_2$
		off	20	2S		
30VDC	resistive	on	20	2S	$1X10^5$	$AgSnO_2$
		off	20	2S		
	general	on	38	2S	$1X10^5$	$AgSnO_2$
		off	15	2S		
	lamp load	on	70	2S	$1X10^5$	$AgSnO_2$
		off	7	2S		

Note:The table above is point to coil without diode paralleled and resistance components,if they are required,please contact Sanyou for technical service.

Charateristic Data

Contact material	$AgSnO_2$	
Dropping Voltage of Contacts	200mV/at 10A (max.)	
Operate time(at nominal volt.)	10msec. Max.	
Release time(at nominal volt.)	ordinary type:5msec. Max.	with resistor or diode type :15 msec. Max.
Insulation Resistance	100MΩ Min.(DC500V)	
Initial dielectric strength	Between open contact: AC500V, 50/60Hz 1min.	
	Between coil and contact: AC500V, 50/60Hz 1min.	
Vibration resistance	10~60Hz at double amplitude of 0.35 mm	
	60~500Hz 49m/s²	
Shock resistance	NO 20G	
Endurance (operate)	Mechanical (at 10,800ops./h)	$1X10^7$ cycles
	Electrical (at 900ops./h)	See the contact parameters table
Ambient temperature	-40℃~+125℃(no condensation)	
Unit weight	Approx.14g	

Coiol Data (at 20℃)

Nominal voltage (VDC)	Nominal operating current ±10% (mA)	Coil resistance ±10% (Ω)	Parallel resistance (Ω)	Equivalent resistance (Ω)	Pick-up voltage (Max.)	Drop-out voltage (Min.)	Max. allowable voltage	Nominal operating power(W)
6	266.7	22.5	---	---	3.6	0.6	130% of nominal voltage	1.6
9	180.0	50	---	---	5.4	0.9		
12	133.3	90	---	---	7.2	1.2		
24	66.7	360	---	---	14.4	2.4		
48	33.3	1,440	---	---	28.8	4.8		
6	266.7	22.5	180	20	3.6	0.6		1.8
12	133.3	90	680	79.5	7.2	1.2		
24	66.7	360	2,700	317.6	14.4	2.4		
6	214.3	28	---	---	3.6	0.6		1.3
12	109	110	---	---	7.2	1.2		
24	54	445	---	---	14.4	2.4		
6	214.3	28	180	24.2	3.6	0.6		1.5
12	109	110	680	94.7	7.2	1.2		
24	54	445	2,700	382	14.4	2.4		
12	66.7	180	---	---	7.2	1.2		0.8
24	33.3	720	---	---	14.4	2.4		
12	66.7	180	680	142.3	7.2	1.2		1.0
24	33.3	720	2,700	568.4	14.4	2.4		

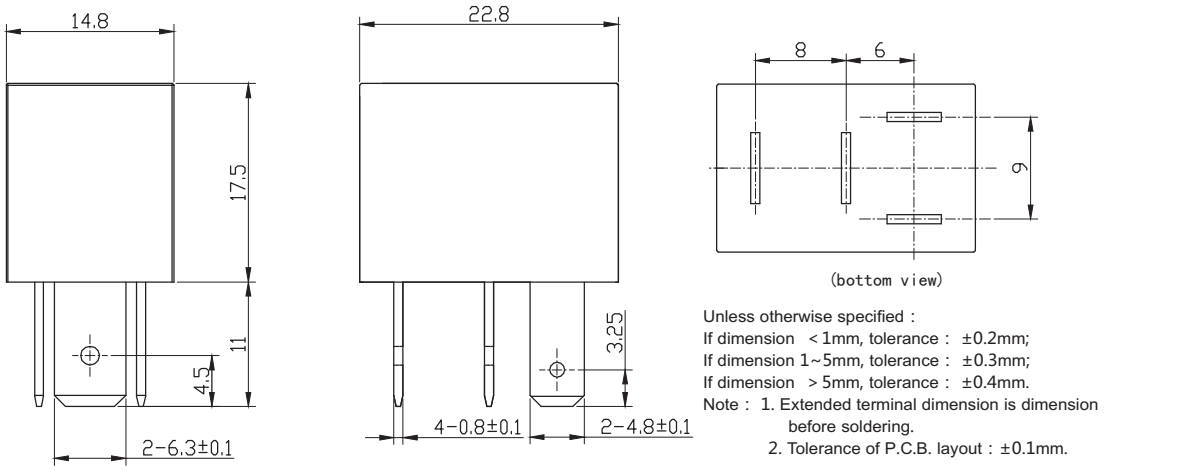
Ordering Information

Nomenclature

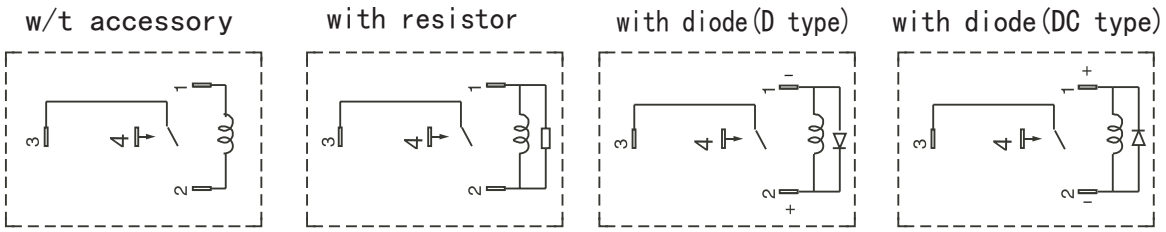
SARH – S – 1 12 D M R – XX

- XX: Special Parameter : Nil-Standard type, Letter or number-Special requirement
- R: Accessory Form:Nil-w/t accessory,R-with resistor ,D-with diode, DC-with diode(see wiring diagram)
- M: Contact Form: M-FormA
- D: Coil Power:H-0.64W/(1.8W), D-1.3W/(1.5W),L-0.8W/(1.0W)
- 12: Coil Voltage (VDC) : 06,09,12,24,48
- 1: Number of Poles : 1-1 Pole
- S: Protective Construction : S-Flux proofed SH-Sealed type washable
- SARH: Type Designation : SARH

Outline Dimensions, Wiring Diagram (unit :mm)



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.

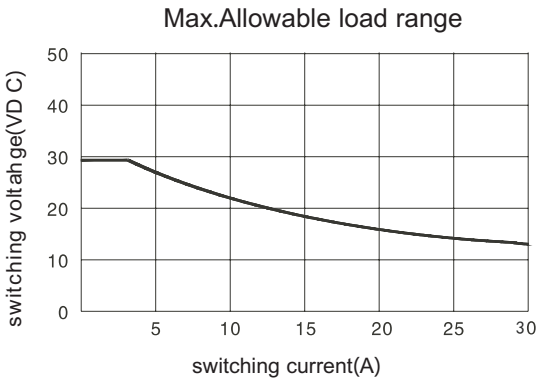


wiring diagram(bottom view)

Typical Applications

- Heater,fan control,fuel pump control,wiper control,headlight control
- Car air conditioner,electromagnet control,lighting control,interlocks,office equipment,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.

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