

Features

- 50A Switching Capability
- 125°C High Operating Temperature
- 1 Form A、1 Form C and 2 Form A contact available
- Dustproof and Fluxproof type available
- Resistor or diode paralleled type available

Typical Applications

- Rear window defogger , Battery breaking device , Automotive AC Foglight control , Headlight control
- Electric power distributor , ABS Traction control system.

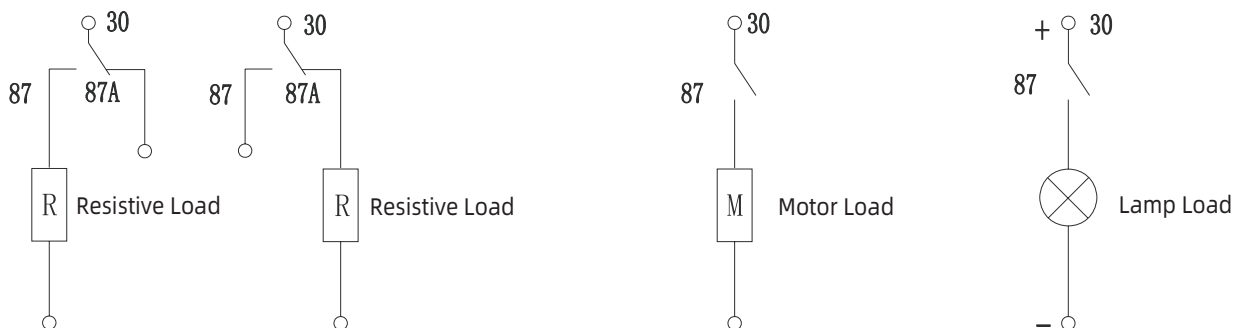
Contact Data

Nominal Load (Res. Load)	Normal: NO:50A 14VDC /NC: 30A 14VDC (at 23C) NO:40A 14VDC/NC: 20A 14VDC (at 85°C)
	Special: 2A:NO:30A 14VDC
Max Switching Current(normal)	On(NO):150A(Surge Current of Lamp Load, 14VDC)
	Off(NO):50A(Resistive Load 14VDC)

Contact rating voltage	Load type		contact rating current(A)			duty factor	endurance (cycles)	contact material
			Form C		Form A			
14VDC	Resistive load	Making	50	30	50	2s : 2s	1x10 ⁵	AgSnO ₂
		Breaking	50	30	50	2s : 2s		
	The motor load	Making	80 ^a	—	80 ^a	2s : 2s	1x10 ⁵	AgSnO ₂
		Breaking	30	—	30	2s : 2s		
27VDC	Light load	Making	150 ^a	—	150 ^a	2s : 2s	1x10 ⁵	AgSnO ₂
		Breaking	30	—	30	2s : 2s		
	Resistive load	Making	30	10	20	2s : 2s	1x10 ⁵	AgSnO ₂
		Breaking	30	10	20	2s : 2s		

Notes: a. Time ratio of peak current: Stable current is:1:10

Wiring Diagram for different Loads



Parameters Data

Contact Material	Silver alloy	
Dropping Voltage of Contacts	200mV Max (at 10A)	
Operate Time (at rated coil voltage)	10msec.Max.	
Release time (at rated coil voltage)	Ordinary type:10msec.Max	Parallel resistor or diode type :15 msec. Max.
Initial Insulation Resistance	100MΩ Min.(500VDC)	
Initial Dielectric Strength	Between open contacts:	500VAC, 50/60Hz 1min.
	Between contacts and coil:	500VAC, 50/60Hz 1min.
Shock Resistance	NO 30G/NC 5G	
Vibration Resistance	5~22.3Hz,at double amplitude of 10 mm 22.3~500Hz,98m/s ²	
Endurance (operate)	Mechanical (10,800 ops./h)	1×10 ⁷ ops
	Electrical (900 ops./h)	See the contact parameters table
Ambient Temperature	-40°C to +125°C (No condensation)	
Weight	Approx. 32.0g	

Coil Data

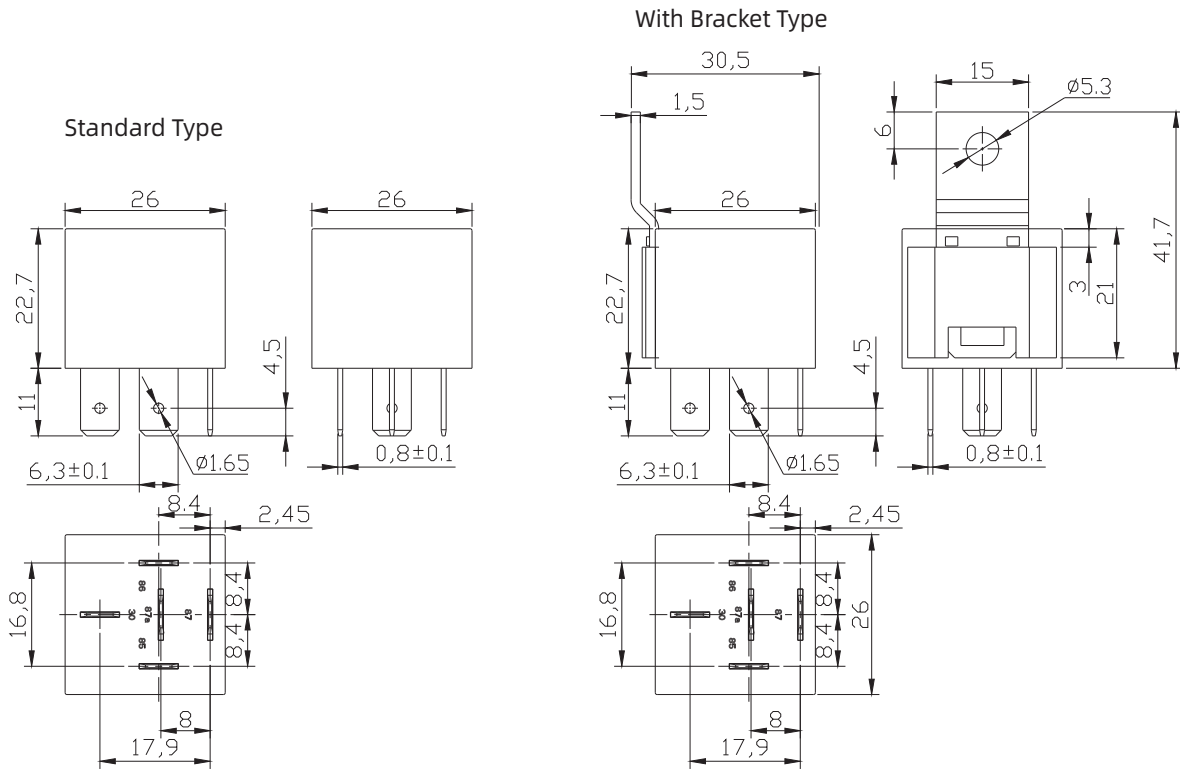
Rated Voltage (VDC)	Operating Current ±10(mA)	coil resistance ±10(Ω)	Parallel Resistance (Ω)	Equivalent (Ω)	Max. Allowable Resistance Voltage (VDC)	Operate Voltage Max.(VDC)	Release Voltage Min.(VDC)	Coil Power (W)
12	133.33	90	---	---	150% of Rated Voltage	60% of Rated Voltage	10% of Rated Voltage	Approx. 1.6
12	133.33	90	680	80				Approx. 1.8
24	66.7	360	---	---				Approx. 1.6
24	66.7	360	2700	320				Approx. 1.8

Ordering Information

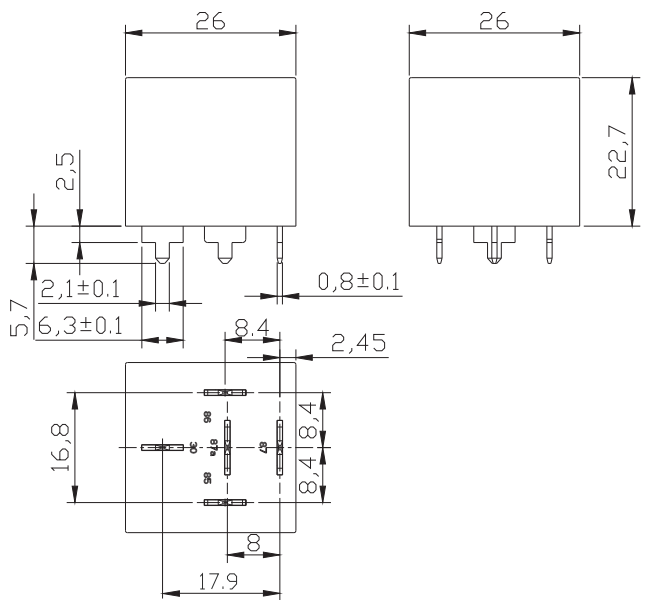
SARN	-S	-1	12	D	M	F	R	-XX	Special Parameter: Nil-Standard type,01-terminal without hole
									Accessory Form: Nil-without accessory, R-Parallel resistor D-parallel diode(see wiring diagram) DC-Parallel diode(see wiring diagram)
									Mounting type : Nil-without bracket, F-with iron bracket,P-PCB type
									Contact Form: M-Form A , Nil-Form C
									Coil Power: D- 1.6W /1.8W
									Coil Voltage(VDC): 12 , 24
									Number of Poles:1-1 Pole
									Protective Construction:Nil-Dustproof , S-Fluxproof
									Type Designation:SARN

Outline Dimensions, Wiring Diagram (unit:mm)

Outline Dimensions

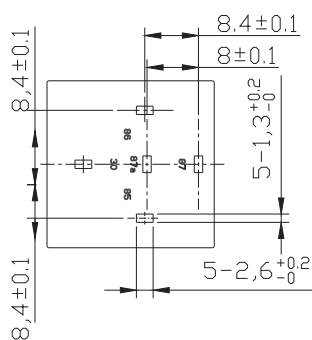


PCB type

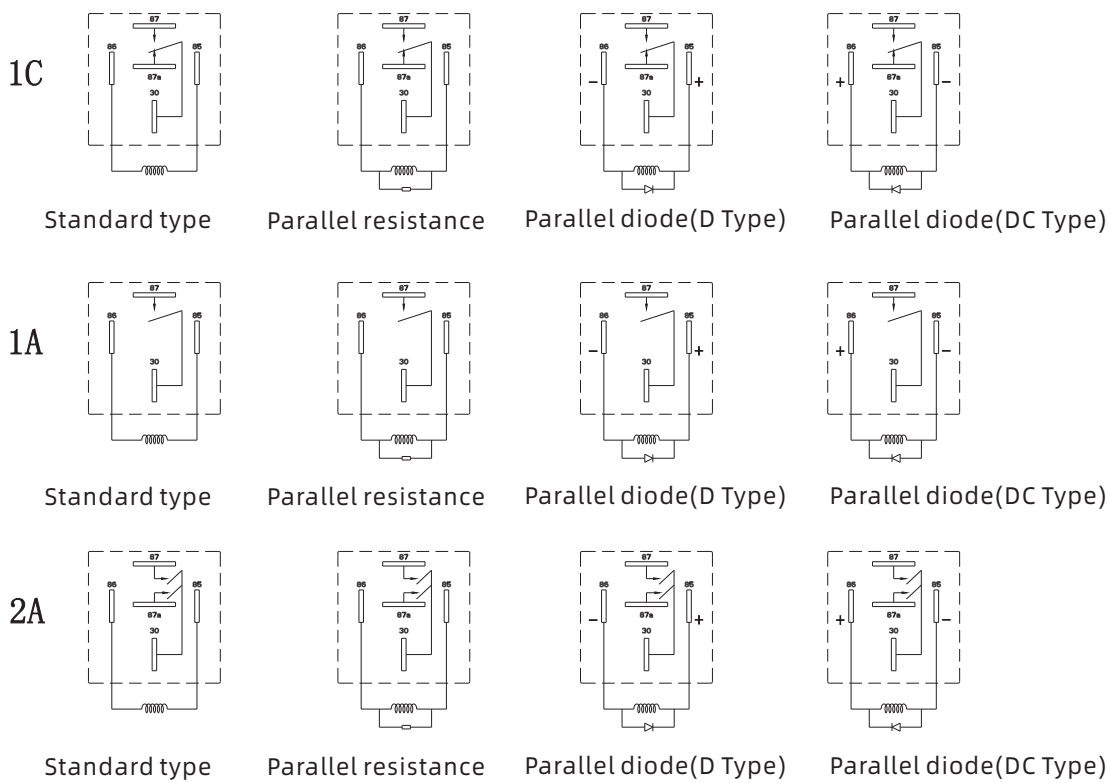


Unless otherwise specified:
 If dimension < 1mm, tolerance: $\pm 0.2\text{mm}$;
 If dimension 1~5mm, tolerance: $\pm 0.3\text{mm}$;
 If dimension > 5mm, tolerance: $\pm 0.4\text{mm}$.
 Note: 1. Extended terminal dimension is dimension before soldering.
 2. Tolerance of P.C.B. layout: $\pm 0.1\text{mm}$.

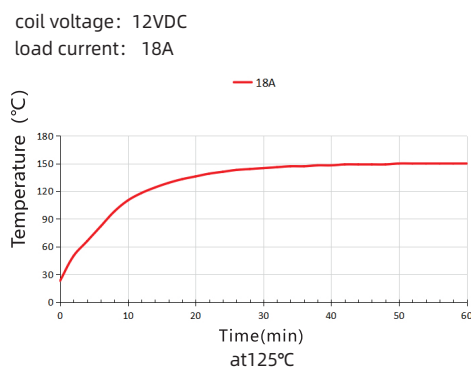
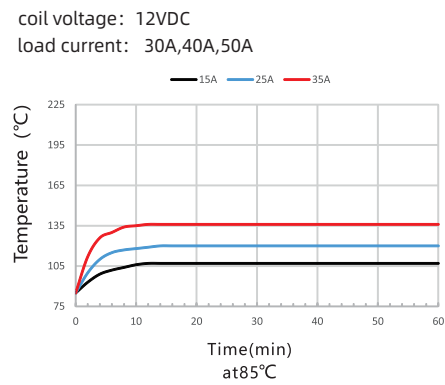
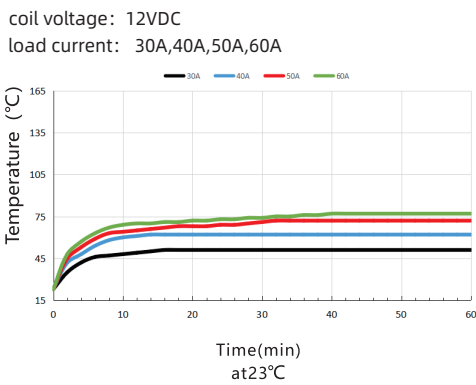
P.C.B. Layout



Electrical schematic diagram



Characteristic Curves



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.