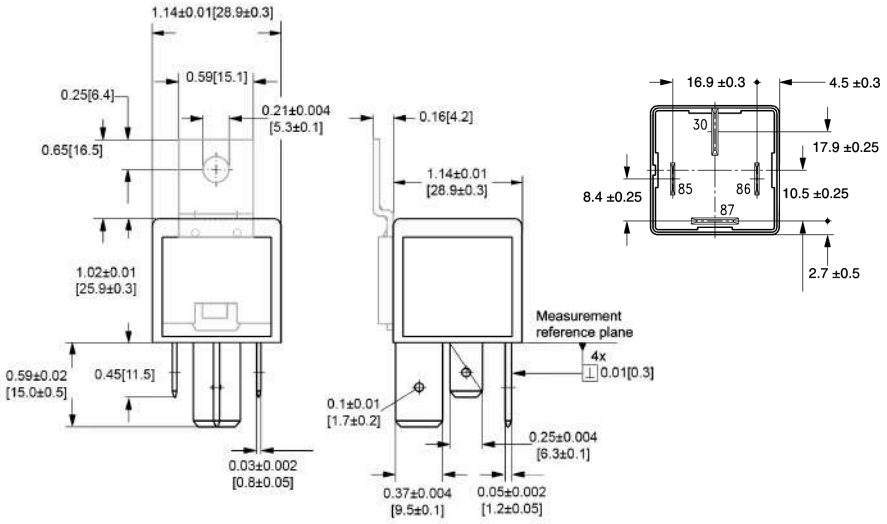
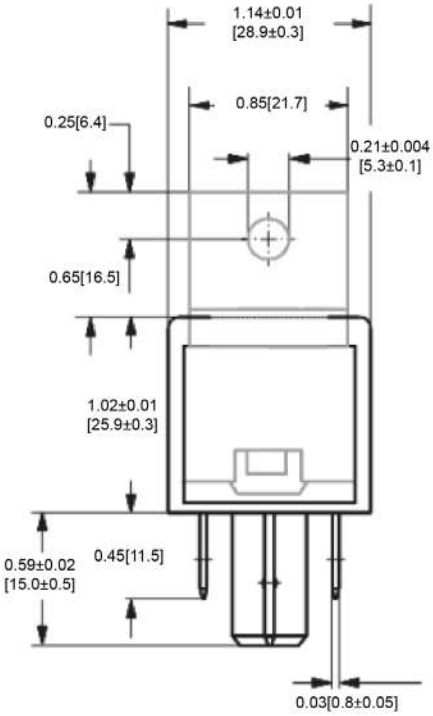
Mechanical Dimensions: Inches [mm]

No Bracket/Metal Bracket

Tolerances ±0.012 [0.3] Unless Otherwise Specified



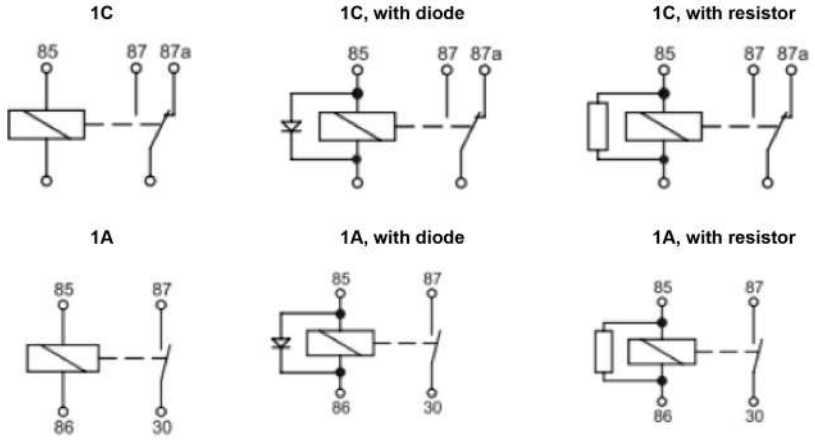
Plastic Bracket



Part Number Information

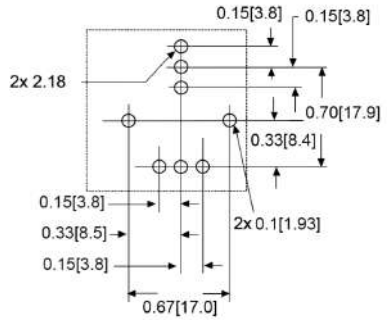
RYA2 Series	-	1A Contact Arrangement	-	12VDC Coil Nominal Voltage	-	1 Terminal Type	-	R Special Mark
RYA2: No Bracket **RYA2P:** Plastic Bracket **RYA2M:** Metal Bracket		**1A:** 1 Form A (SPST-NO) **1C:** 1 Form C (SPDT)		12VDC 24VDC		**1:** Quick Connect **PC:** PCB Terminal		**Blank:** Standard Type **R:** With Resistor **D:** With Diode

Circuit Diagram

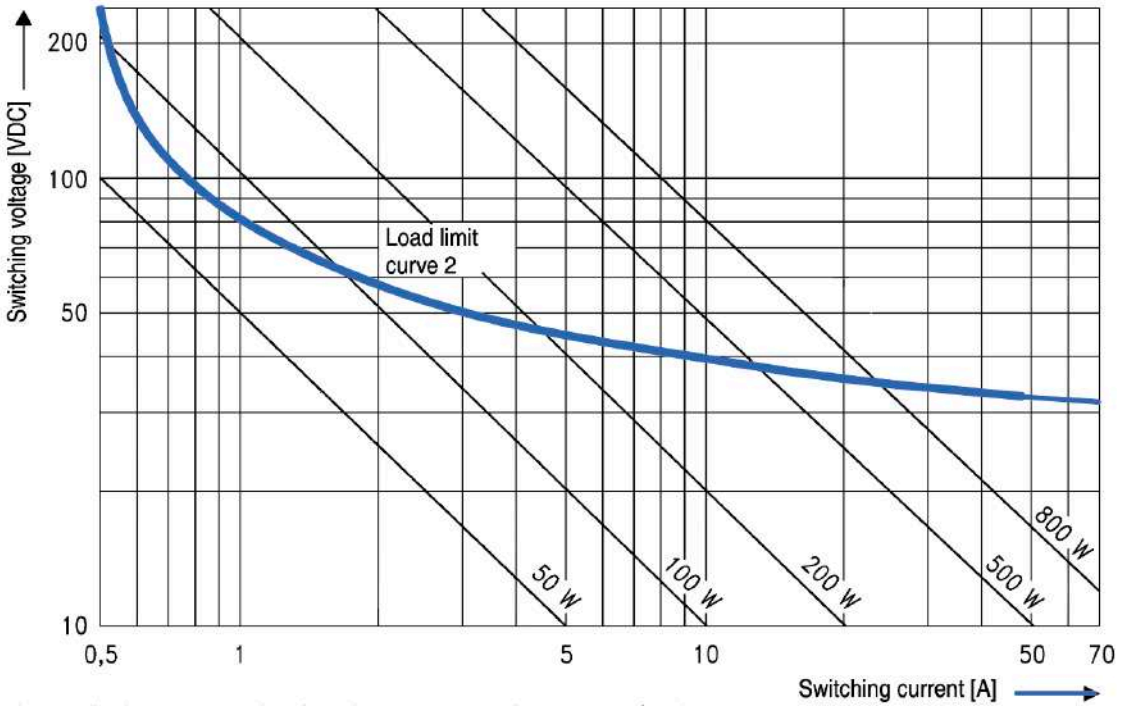


PCB Layout

Bottom view on solder pins



Max DC Load Breaking Capacity



Coil Data

Rated Coil Voltage: **12VDC, 24VDC**

Coil Code	Rated Voltage (VDC)	Operate Voltage (VDC)	Release Voltage (VDC)	Coil Resistance (Ω±10%)	Rated Coil Power (W)
52	12	7.2	1.6	90	1.6
53	24	14.4	3.2	324	1.8
56	24	16	4	268	2.1
65	24	14.4	2.4	288	2

All figures are given for coil without pre-energization, at ambient temperature +23°C

Insulation Data

Initial diaelectric strength	
Between Open Contacts	500 Vrms
Between Contact and Coil	500 Vrms
Between Adjacent Contacts	500 Vrms

Automotive Relay | RYA2

Contact Data

Contact Arrangement		1 form A (1 NO)	1 form A (1 NO)	1 form C (1 NO)
Contact Gap		-	-	>0.8mm
Rated Voltage		12VDC	24VDC	12VDC/24VDC
Limiting Continuous Current	23°C	80A		
	85°C	50A		
	125°C	30A		
Limiting Making Current		240A		
Limiting Breaking Current		80A	25A	40A
Limit Short-Time Current (Overload Current)		1.35 x 50A (1800 s)		
		2.00 x 50A (5s)		
		3.50 x 50A (0.5s)		
		6.00 x 50A (0.2s)		
Jump Start Test		24VDC for 5 Min (conducting nominal current at 23°C)		
Contact Material		AgSn02		
Minimum Recommended Contact Load		1A at 5VDC		
Initial Voltage Drop, form A (NO) contact at 10A, typ./max.		10/300 mV		
Frequency of Operation at Nominal Loads		6 ops./min (0.1Hz)		
Operate/Release Time Typ.		7/2ms		
Electrical Edurance	Resistive Load at 14VDC	> 1 x 105 ops, 80A	-	-
		> 2 x 105 ops, 50A	-	-
	Resistive Load at 28VDC	-	> 1 x 105 ops, 25A	> 1 x 105 ops, 50A
Mechanical Endurance		> 1 x 10 7ops		

Note:

1. Special high performance 24VDC version with contact gap >0.8mm
2. The values apply to a resistive or inductive load with suitable spark suppression and at maximum 14VDC for 12VDC or 28VDC load voltages. For a load current duration of maximum 3s for a make/break ratio of 1:10
3. Current and time are compatible with circuit protection by a typical automotive fuse. Relat will make, carry, and break the specified current.
4. For unsuppressed relay coil, a low resistive suppression device in parallel to the relay coil increases the release time and reduces the lifetime caused by increased erosion and/or higher risk of contact tack welding.

Rev	Date of issue	Revision Notes	Designed	Approved
C	06-04-2026	Initial Drawing	RC	OF