## Automotive Relays

#### Features

Small size and high contact rating (100A) High temperature design Plug in or PC board terminal Optional mounting bracket Wash tight type is available



#### Ordering information

$\frac{FRC3B}{1} \underbrace{A}_2 - \underbrace{1}_3 \underbrace{A}_4 \underbrace{N}_5 \underbrace{S}_6 - \underbrace{DC12V}_7$	
1 Relay model: FRC3; FRC3B 2 Contact arrangement: A: 1 Form A; C: 1 Form C 3 Mounting termination: NIL: Moulded bracket dust cover; 1: Plain dust cover; 2: Metal bracket dust cover 4 Version: NIL: Plug in type; A: PCB type 5 Coil suppression: NIL: Standard type; N: With diode; R: Resistor; T: Transil (DB-03)	6 Construction: NIL: Dust cover; S: Wash tight type (only for plain dust cover & metal bracket dust cover) 7 Rated voltage Note: RoHS : RoHS compliant relay RoHS-I : AgNi contact RoHS-N: AgSnO, contact

#### Coil rating

Rated voltage	resis	oil tance 10%	Rated current (mA)		Must operate voltage	Must dropout voltage	Maximum voltage	Power consumption (W)	Operate time	Release time
(V)	FRC3	FRC3B	FRC3	FRC3B	% of rat	ed voltage (a	at 20°C)	Approx.	(ms)	(ms)
12 24	80 320	50 195	150 75	240 123	65 Max.	10 Min.	130 Max.	FRC3 : 1.8 FRC3B: 2.9	<10	<10
*If use resistor: DC 6V with 180Ω resistor										

DC 12V with 680Ω resistor

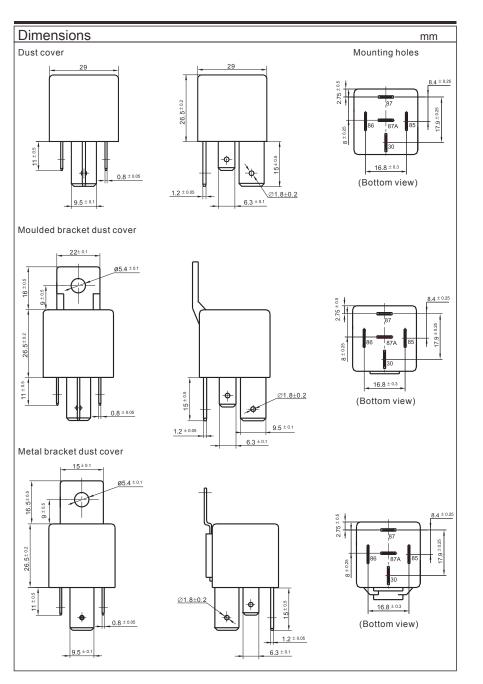
DC 24V with 2,702Ω resistor

CAUTION: 1. The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay. 2. Pickup and release voltage are for test purposes only and are not to be used as design criteria.

### Characteristics

Contact arrangement		SPST (1 Form A); SPDT (1 Form C)				
Contact material		Silver alloy				
Contact resistance		30mΩ Max.				
Contact rating (resistive)		FRC3 : N.O.: 70A 14VDC (Special: 80A 14VDC); N.C.: 60A 14VDC FRC3B: N.O.: 100A 14VDC; N.C.: 70A 14VDC				
Switching power		FRC3: 980W Max.; FRC3B: 1,200W Max.				
Switching voltage		DC 75V Max.				
Insulation resistance		100MΩ Min. (500VDC)				
Dielectric strength		500VAC (50Hz/min)				
Shock resistance		20g Approx.				
Vibration resistance		1.5mm Double amplitude 10-40Hz				
Ambient temperature		-40°C to +85°C (Special request up to 125°C)				
Humidity		85% RH, 40°C				
Operation life	Mechanical	10 <sup>7</sup>				
	Electrical	10 <sup>6</sup> (at rated load)				
Weight		47g Approx.				

(Specifications are subject to change without notices.)



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