

## FRS12000

miniature screened 2 kV, 5A





High current capability is achieved through the use of two reed switches in parallel. Open frame and covered construction are available, depending on voltage isolation requirements. The series uses materials with exceptional RF and temperature performance characteristics and, in addition, the coils are partially screened offering extended RF performance over the HF band.

- Up to 3KV Isolation
- 5A Carry Current (up to 30MHz)
- Excellent RF Characteristics
- Designed for HF Applications
- Compact Package on 0.1 " Pin Pitch
- Full Customising Facility

CONTACT	UNITS	CONDITIONS	FRS12030	FRS12208
Action (form A, B or Latching)			А	A
Switching Voltage	٧	DC max	20	20
Switching Current	А	DC max	0.5	0.5
Carry Current	А	RMS @ 30MHz max	5*	5*
Isolation	kV	DC max	0.5	2
Capacitance	pF	coil/screen gnd	0.3	0.3
Contact Connections		pin position	5 & 8	5 &12
Lifetime	operations	dry switching	10 <sup>9</sup>	109
Contact Resistance	mOhms	maximum (typical)	80 (30)	80 (30)
Insulation Resistance	Ohms	minimum (typical)	10 <sup>10</sup> (10 <sup>13</sup> )	1010 (1013)
ESR at 4.5A, 30MHz	mOhms	typical	90	90
COIL at 20°C				
Nominal Working Voltage	VDC		24	24
Working Voltage Range	VDC		19-31	19-30
Must Operate	VDC	max	2	4
Must Release	VDC	min	2	4
Nominal Resistance	ohms	+/10%	1150	1000
RF Screening			Part	Part
RF Screening Connection		pin position	17	15
Coil Connections		pin position	3 & 11	4 & 13
RELAY				
Construction			Open Frame	Covered
Operate time (incl. bounce)	ms		2	2
Release time (incl. bounce)	ms		1	0.5
Contact to all other terminals	kV	DC max	0.5	2
Coil to screen	kV	DC max	0.5	0.5
Capacitance contact to all other terms	pF	contacts open	2.5	3.0
ENVIRONMENTAL				
Storage temperature range	О°			-55°C to +125°C
Operating temperature rang	°C	Limited current*		-40°C to +85°C
Shock	g	11ms 1/2 sine pk		100
Bump	g	6ms 1/2 sine pk		40
Vibration	g	60-500Hz		20
Weight	gm	typical	7	7

\*see graphical data



FRS12000 miniature screened 2 kV, 5A

20°C

65°C 85°C

30

25

FRS12208

Max Current vs. Frequenc

15

20

10

Freq uency (MHz)

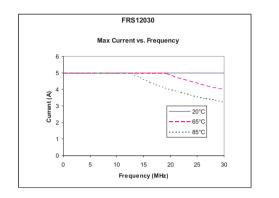
5

Current (A)

n

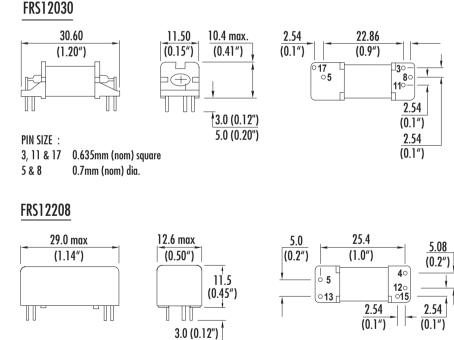
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Many other variants in the FRS12000 family are available with different coil and contact configurations, as well as a number of pin footprints for drop-in replacements.





All dimensions are in millimeters (inches)





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## 5.0 (0.20") PIN SIZE : 4, 13, 15 0.635mm (nom) square 5, 12 0.7mm (nom) dia. **IS09001 Certified** USA

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