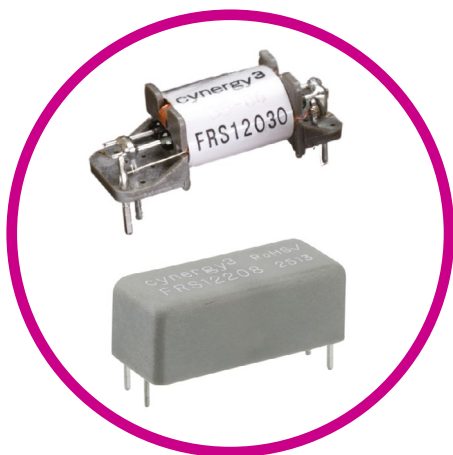


| FRS12000

MINIATURE SCREENED 5A, 2KV REED RELAY



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.

The coils are partially screened, offering extended RF performance over the HF band.

Features

- Screened Coil for Low RF Loss
- 5A Carry current (up to 30MHz)
- Ideal for HF Antenna Tuning Applications
- Full Customizing Facility

SPECIFICATIONS

Contact	Unit	Condition	FRS12030	FRS12208
Contact Material			Rhodium	Rhodium
Switch Action			SPNO	SPNO
Carry Current Max	A	RMS@30MHz	5*	5*
Switching Current	A	DC max	0.5	0.5
Switching Power	W	max	10	10
Switching Voltage	V	max	20	20
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 ⁹	10 ⁹
Contact Resistance	mΩ	max (typical)	80 (30)	80 (30)
Insulation Resistance	mΩ	max (typical)	10 ¹⁰ (10 ¹³)	10 ¹⁰ (10 ¹³)
ESR at 4.5A, 30MHz	mΩ	typical	90	90

Coil at 20°C	Unit	Condition	FRS12030	FRS12208
Operating Voltage	V	Nominal	24	24
Operating Voltage	V	Range	19-30	19-30
Must Operate Voltage	V		15	15
Must Release Voltage	V		2	4
Resistance	Ω	Nominal	1150	1000
RF Screening			Partial	Partial
RF Screening Connection		pin position	17	15
Coil Connections		pin position	3 & 11	4 & 13
Relay				
Construction			Open Frame	Covered
Operate Time	ms	max incl bounce	2	2
Release Time	ms	max incl bounce	1	0.5
Isolation Contact to all other Terminals	kV	DC max	0.5	2
Isolation Coil to Screen	kV	DC max	0.5	0.5
Capacitance Contact to all other Terminals	pF	contact open	2.5	3.0
Environmental Conditions				
Storage Temperature	°C	range	-55 to +125	
Operating Temperature	°C	Limited current*	-40 to +85	
Shock	g	11ms ½ sine peak	100	
Bump	g	6ms ½ sine peak	40	
Vibration	g	60-500Hz	20	
Weight	gm	typical	7	8

*see graphical data overleaf

Please refer to this document for circuit design notes:

<https://www.cynergy3.com/blog/reed-relay-application-notes>



DIMENSIONS

All dimensions are in millimeters.

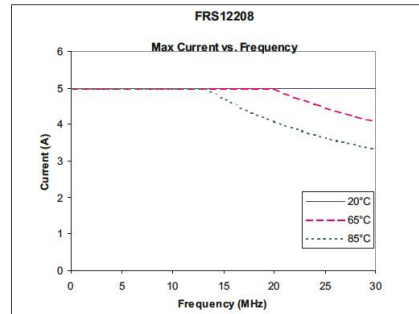
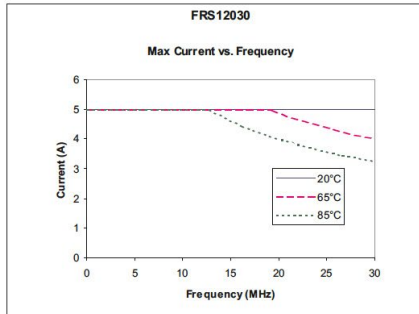
Many other variants in the FRS12000 family are available with different coil and contact configurations, as well as a number of pin footprints for drop-in replacements.

Distributor

where technologies meet solutions

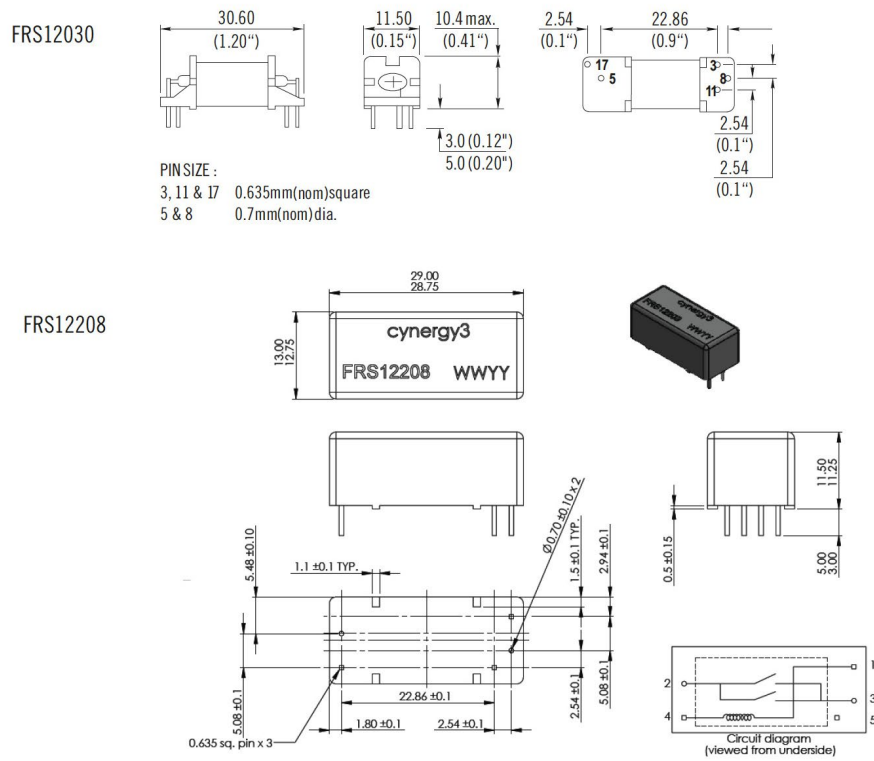
info@amstechnologies.com
www.amstechnologies-webshop.com

Contact us



Please refer to this document for circuit design notes:

<https://www.cynergy3.com/blog/reed-relay-application-notes>



Made in the UK

Sensata Technologies, Inc. ("Sensata") data sheets are solely intended to assist designers ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products. Sensata data sheets have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular data sheet. Sensata may make corrections, enhancements, improvements and other changes to its data sheets or components without notice.

Buyers are authorized to use Sensata data sheets with the Sensata component(s) identified in each particular data sheet. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATA SHEETS ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATA SHEETS OR USE OF THE DATA SHEETS, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATA SHEETS OR USE THEREOF.

All products are sold subject to Sensata's terms and conditions of sale supplied at www.sensata.com SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.