

| FRD13000

FULLY SCREENED 6A, 9KV REED RELAY



A complete RF screen around the coil assembly for a low loss transmission path, results in better carry current at elevated temperatures for this open frame series. An anti-corona sleeve is fitted around the reed switch for improved RF voltage isolation.

This type is widely used in HF Antenna Tuning Unit (A TU) applications.

Available as Form A (SPNO) or Form B (SPNC) contact configurations

Features

- New Fully Screened Coil for Low RF Loss
- Up to 9kVDC and 6A at 30MHz
- Ideal for HF Antenna Tuning Applications
- Customizing Facility

SPECIFICATIONS

Contact	Units	Condition	FRD13506	FRD13503	FRD13504
Action (Form A, B or Latching)			A	A	B
Switching Voltage	V	DC max	20	20	20
Switching Current	A	DC max	1	1	1
Carry Current	A	RMS at 30MHz max	6	6	6
Isolation	kV	DC max	9	9	9
Isolation	kV	RF peak (F=2MHz)	8	8	8
Capacitance	pF	coil/screen gnd	0.5	0.5	0.5
Lifetime	operations	dry switching	10 ⁹	10 ⁹	10 ⁹
Contact Resistance	mOhms	maximum (typical)	50 (15)	50 (15)	50 (15)
Insulation Resistance	Ohms	minimum (typical)	10 ¹⁰ (10 ¹³)	10 ¹⁰ (10 ¹³)	10 ¹⁰ (10 ¹³)
ESR at 4.5A, 30MHz	mOhms	typical	30	30	30
Coil at 20°C					
Nominal Working Voltage	VDC		12	24	24
Must Operate	VDC	max	9	15	16
Must Release	VDC	min	2	3	3
Nominal Resistance	Ohms	+/-10%	98	900	900
RF Screening			Full	Full	Full
RF Screening Connection		pin position	2 & 5	2 & 5	2 & 5
Coil Connections		pin position	1 & 6	1 & 6	1(+) & 6

Relay	Units	Condition	FRD13506	FRD13503	FRD13504
Operate Time (Incl. Bounce)	ms		3	3	1
Release Time	ms		1	1	3
Isolation Contact to all other Terminals	kV	DC max	9	9	9
Isolation Coil to Screen	kV	DC max	0.5	0.5	0.5
Capacitance Contact to all other Terminals	pF	contacts open	1.5	1.5	1.5
Environmental Conditions					
Storage Temperature Range	°C			-55 to +125	
Operating Temperature Range	°C	Limited current*		-40 to +85	
Shock	g	11ms 1/2 sine pk		100	
Bump	g	6ms 1/2 sine pk		40	
Vibration	g	10- 500Hz		10	
Weight	gm		20	20	23

*see graphical data overleaf.

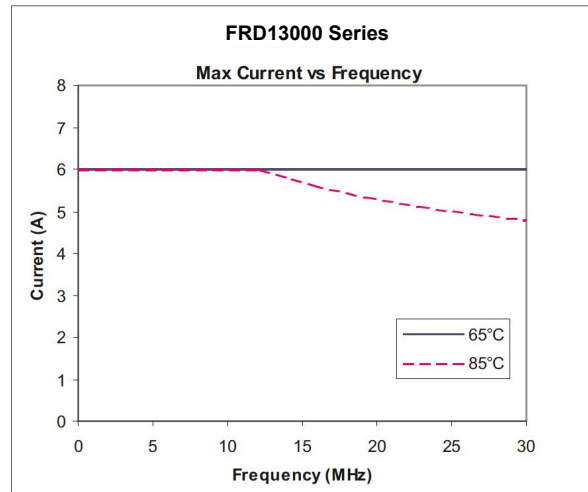
Please refer to this document for circuit design notes:

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



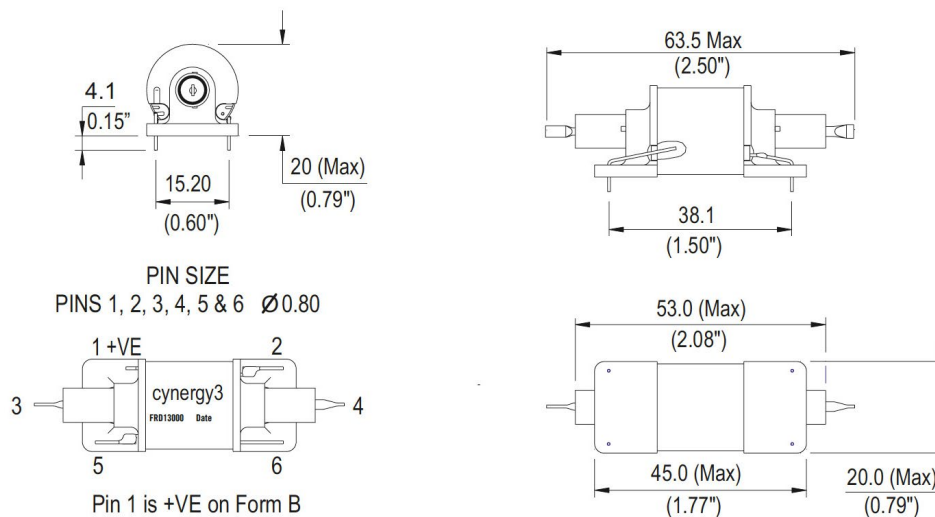
DIMENSIONS

All dimensions are in millimeters.



Please refer to this document for circuit design notes:

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



Made in the UK

Distributor

where technologies meet solutions

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

Contact us

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.