



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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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 (ATU) applications.

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

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

CONTACT	UNITS	CONDITIONS	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					
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 terms	pF	contacts open	1.5	1.5	1.5
ENVIRONMENTAL					
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

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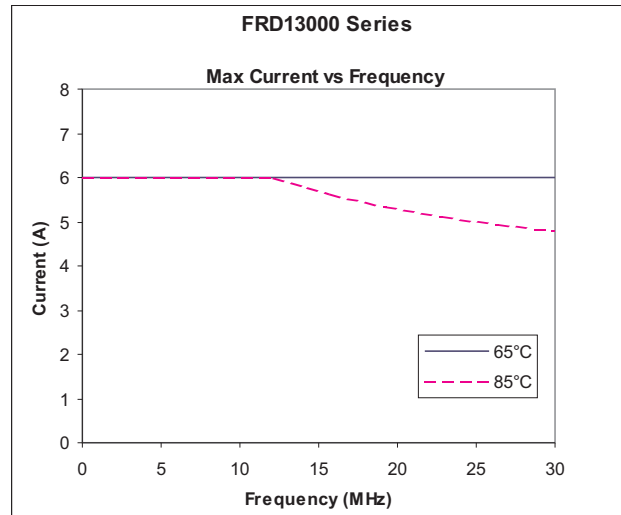
FRD13000 2016

[Please refer to this document for circuit design notes:-
http://www.cynergy3.com/blog/application-notes-reed-relays-0](http://www.cynergy3.com/blog/application-notes-reed-relays-0)

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FRD13000

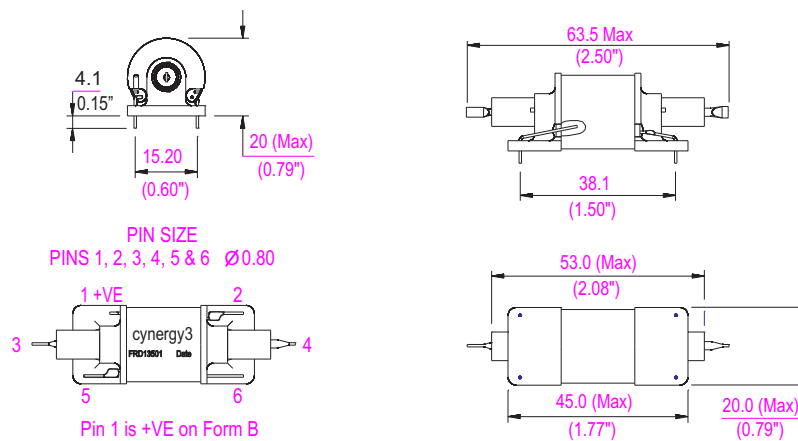
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Mechanical Dimensions

All dimensions are in millimeters (inches)



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