

CRYSTAL CAN RADIO FREQUENCY RELAY 75 WATT, 40 MilliWatts SENSITIVE

Series RFBC

Product Description

This series of coaxial terminated hermetically sealed relays have been designed to provide reliable switching functions in the most demanding radio frequency applications. The use of 2BC relays in the basic construction, has been coupled with a unique and improved termination network to insure faultless performance under severe environmental conditions.

The design concepts employed in each of this series have been time tested through thousands of hours testing and millions of field operations to provide the highest degree of reliability.

The following construction features ensure the highest reliability in extreme environments:

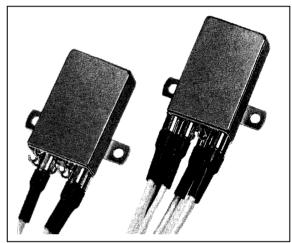
- All welded relay construction
- Cleaning and sealing techniques ensures maximum internal cleanliness
- Low level to 2 amperes auxiliary switching
- 1 or 2 form C, RF contacts, special metal alloy with gold plating
- Frame, armature designs and force / mass ratio provides exceptional shock and vibration immunity
- Coax interconnections
- 200 watt RF carry capability
- 75 watt RF switching capability
- Terminated with 6 inches length RG 196A/u Teflon cable.

Series Types

- **RFBC** 1 form C, SPDT - **2RFBC** 2 form C, DPDT

Environmental and Physical Specifications

Temperature (Ambient)	- 65°C to + 125°C				
Shock	100 g, 6 ms.				
Vibration (sinusoidal)	15 g, 10 to 2000 Hz				
Acceleration	30 g				
Sealing	All welded, Hermetic				



Electrical Characteristics (over the Temperature range. Unless otherwise noted)

Coil Data	See Typical Character	See Typical Characteristics chart		
	Type Load	Contact Load	Cycles min.	
Contact Rating	Resistive	2 A / 28 Vdc (aux)	100.000	
	Resistive	75 Watts RF Switching, 200 Watts carry (cold switching)	100.000	
Contact Resistance	0,05 Ω max. initial au	$0,05~\Omega$ max. initial aux. Contact		
Operate Time	15,0 ms. max. at 25°C	15,0 ms. max. at 25°C		
Release Time	3,0 ms. max. at 25°C			
Dielectric Strength	500 Vrms, 60 Hz, all mutually insulated points, at sea level			
Insulation Resistance	$1.000 \text{ M}\Omega$ min. all points at 500 Vdc			
Sensitivity	40 mW at pick-up, at 25 °C			

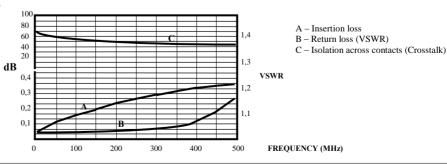
Frequency range	0 to 500 MHz (derated characteristics to 1000 MHz)			
	Typical at 100 MHz	Typical at 500 MHz		
Voltage Standing Wave Ratio (VSWR)	< 1,1:1	< 1,2:1		
Insertion Loss	0,16 dB	0,5 dB		
Crosstalk	50 dB	40 dB		
Power Switching	75 Watts 50 Watts			
Power Handling	200 Watts max.			
Characteristic Impedance	50 or 75 Ω (other impedances available on special order)			



Note:

Typical characteristics are based on factory knowledge. Test to ensure compliance, are not performed.

Values shown are in a 50 Ω impedance coaxial system.



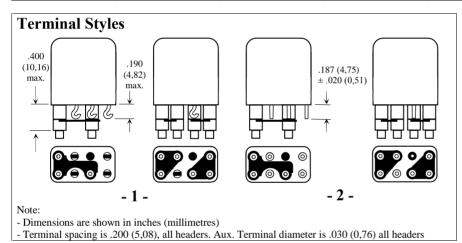


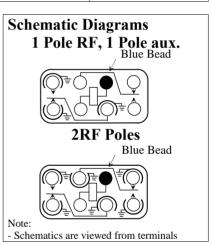
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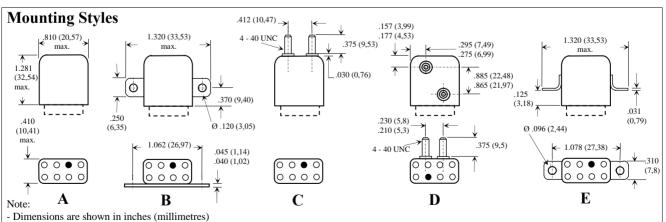
Series RFBC

Typical Characteristics

Voltage Coil Resistance		Nominal l	Rated Coil	Pick-up	Drop-out	
Code	± 10% at 25°C	Voltage (Vdc)	Current (mA)	mA Max. at 25°C	mA Min. at 25°C	
101	20	1,8	89,2	44,6	4,5	
102	30	2,2	73,0	36,5	3,7	
103	50	2,8	56,6	28,3	2,8	
104	75	3,5	46,2	23,1	2,3	
105	100	4,0	40,0	20,0	2,0	
106	200	5,7	28,4	14,2	1,4	
107	300	7,0	23,0	11,5	1,2	
109	500	9,0	17,8	8,9	0,9	
112	875	12,0	13,5	6,8	0,7	
113	1000	12,6	12,6	6,5	0,6	
118	2000	18,0	8,9	4,5	0,5	
120	2500	20,0	8,0	4,0	0,4	
128	5000	28,0	5,6	2,8	0,3	
135	8000	36,0	4,5	2,3	0,2	
140	10000	40,0	4,0	2,0	0,2	







Contact factory for other cable types and lengths

How to Order (Part Numbering System)					
1 Pole	RFBC	- 2	A	- 128	
2 Poles	2RFBC	- 2	A	- 128	
Series Type					Voltage Code
Terminal Style					Mounting Style

Note: