



FULL SIZE CRYSTAL CAN RELAY SENSITIVE 25 and 40 MILLIWATT

Series
BC

Product Description

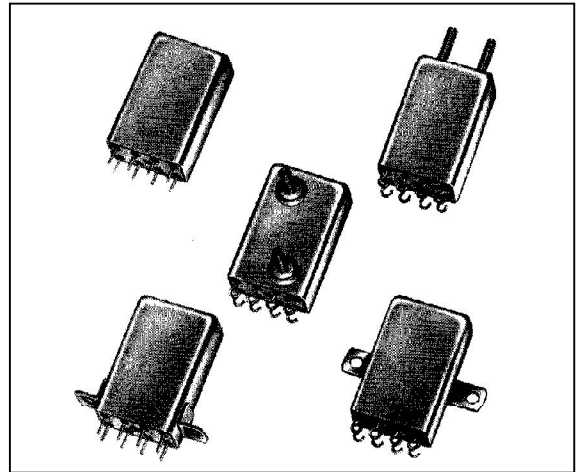
This ultra sensitive full size crystal can relay series, offers switching capability of low level signals up to 2 amperes under the most extreme environmental conditions. Its low coil sensitivity and high contact current carrying capacity makes these relays ideal for a variety of applications. In a unique design, motor efficiency and the proven contact structure of qualified relays, offer sensitivities from 25 milliwatts with low level switching to 2 amperes, low profile, proven designs and wide selection of coil values to provide the designer with a consistent high quality product for today's and tomorrow design.

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 switching
- 1 or 2 form C, SPDT or DPDT contacts, special metal alloy with gold plating

Series Types

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



Environmental and Physical Specifications

Temperature (Ambient)	- 65°C to + 125°C
Shock	100 g, 6 ms.
Vibration (sinusoidal)	20 g, 10 to 2000 Hz
Acceleration	30 g
Sealing	All welded, Hermetic
Weight	1,0 oz. (28,35 grams) max.

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

Coil Data	See Typical Characteristics chart		
Contact Rating	Type Load	Contact Load	Cycles min.
(Note: All ratings with grounded case)	Low Level	10 mA / 30 mV	1.000.000
	Resistive	2 A / 28 Vdc	100.000
		1 A / 115Vac, 400 Hz	100.000
		0,3 A / 115 Vac, 60 Hz	100.000
Overload	4 A / 28 Vdc	100	
Inductive	0,75 A / 28 Vdc (200 mH)	100.000	
Contact Resistance	0,05 Ω max. initial		
Operate Time	15,0 ms. max. at 25°C		
Release Time	3,0 ms. max. at 25°C		
Contact Bounce	3,0 ms. max. at 25°C		
Dielectric Strength	1.000 Vrms min., 60 Hz, all points, 500 Vrms min. between open contacts and coil to case, at sea level		
Insulation Resistance	1.000 MΩ min. all points at 500 Vdc		
Intercontact Capacitance	2,5 pF between contacts		
Sensitivity	Series 1BC: 25 mW at pick-up, 110 mW typical at nominal rated coil voltage, at 25 °C Series 2BC: 40 mW at pick-up, 160 mW typical at nominal rated coil voltage, at 25 °C		



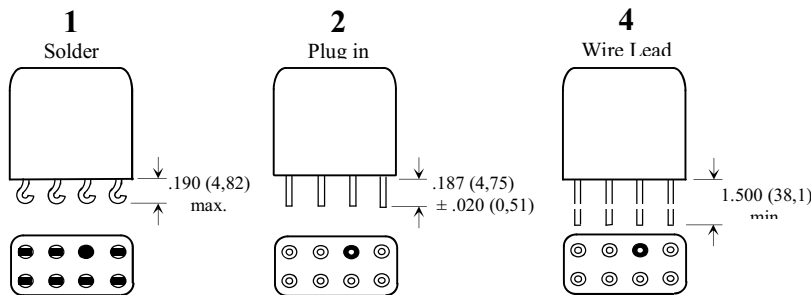
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Typical Characteristics

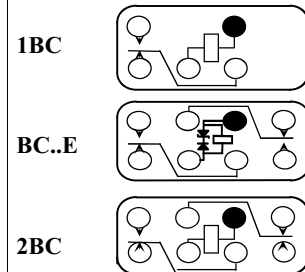
Series Type 2BC - DPDT - 40 mW						Series Type 1BC - SPDT - 25 mW				Coil Suppression [Vdc]
Voltage Code	Coil Resistance [Ω] at 25°C ± 10%	Nominal Coil Voltage [Vdc]	Nominal Coil Current [mA]	Pick-up [mA] Max. at 25°C	Drop-out [mA] Min. at 25°C	Nominal Coil Voltage [Vdc]	Nominal Coil Current [mA]	Pick-up [mA] Max. at 25°C	Drop-out [mA] Min. at 25°C	
101	20	1,8	90,0	45,0	4,5	1,4	70,6	35,3	3,5	23
102	30	2,2	73,0	36,5	3,7	1,8	60,0	30,0	2,9	23
103	50	2,8	56,6	28,3	2,8	2,2	44,6	22,3	2,3	23
104	75	3,5	46,6	23,3	2,3	2,8	37,3	18,6	1,8	23
105	100	4,0	40,0	20,0	2,0	3,2	32,0	16,0	1,6	23
106	200	5,7	28,5	14,2	1,4	4,5	22,4	11,2	1,2	23
107	300	7,0	23,3	11,6	1,2	5,5	18,2	9,1	0,90	47
109	500	9,0	18,0	9,0	0,90	7,1	14,2	7,1	0,70	47
112	875	12,0	13,7	6,8	0,70	9,4	10,7	5,4	0,54	47
113	1000	12,6	12,6	6,5	0,65	10,0	10,0	5,0	0,50	47
118	2000	18,0	9,0	4,5	0,50	14,2	7,1	3,6	0,36	47
120	2500	20,0	8,0	4,0	0,40	15,8	6,3	3,2	0,32	47
128	5000	28,0	5,6	2,8	0,30	22,5	4,5	2,3	0,23	47
135	8000	36,0	4,5	2,3	0,23	29,0	3,6	1,7	0,18	109
140	10000	40,0	4,0	2,0	0,20	32,0	3,2	1,6	0,16	109

Terminal Styles



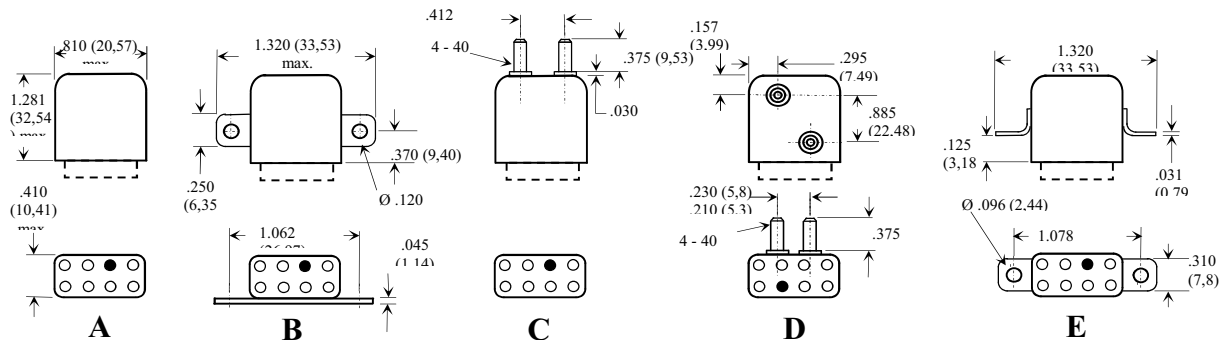
Note:
 - Dimensions are shown in inches (millimetres)
 - Terminal spacing is .200 (5,08). Terminal diameter is .030 (0,76) + .003 (0,08) - .002 (0,05)

Schematic Diagrams



Note:
 - Schematics are viewed from terminals

Mounting Styles



Note:
 - Dimensions are shown in inches (millimetres)

How to Order (Part Numbering System)

Series	2BC	- 2	A	- 128	P E	With internal voltage suppressor
Terminal Style						Insulating Pad (optional)
Mounting Style						Voltage Code