



TO-5 CASE RELAY SENSITIVE SPDT

Series
1MS1

Product Description

A series of ultra miniature hermetically sealed relays constructed in a transistor style case, providing superior performance and established reliability characteristics. Available in a variety of sensitivities contact configurations and hybrid improvements, to provide a most versatile element to the circuit designer.

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 1 ampere switching
- 1 form C, SPDT contacts, special metal alloy with gold plating
- Frame design and force / mass ratio provides exceptional shock and vibration immunity

Low intercontact capacitance and contact circuit losses, provides also a reliable switching functions in demanding RF applications, combined with small size and low coil power dissipation (see figure 1).

Series Type

- 1MS1 1 form C, SPDT

Environmental and Physical Specifications

Temperature (Ambient)	- 65°C to + 125°C
Shock	75 g, 6 ms., half sine wave
Vibration (sinusoidal)	30 g, 10 to 2000 Hz, 1,5 amplitude peak
Bump	40 g, 6 ms.
Sealing	All welded, Hermetic
Weight	0,12 oz. (3,50 grams) max.
Finish	Bright tin lead plated terminations and case

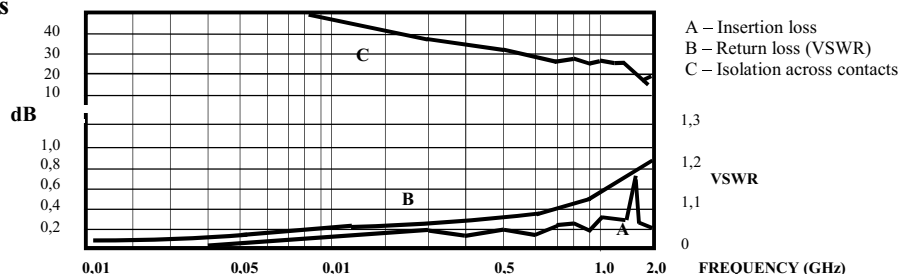


Electrical Characteristics (over the Temperature range. Unless otherwise noted)

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	1 A / 28 Vdc	100.000
	Resistive overload	2 A / 28 Vdc	100
	Inductive	100 mA / 28 Vdc (320 mH)	100.000
Contact Resistance	0,1 Ω max. initial, 0,3 Ω max. after life		
Operate Time	4,5 ms. max.		
Release Time	3,0 ms. max.		
Contact Bounce	2,0 ms. max.		
Dielectric Strength	500 Vrms min., 60 Hz, all points at sea level		
Insulation Resistance	10.000 MΩ min. all points at 500 Vdc		
Intercontact Capacitance	0,7 pF typical		
Sensitivity	50 mW at pick-up, 200 mW at nominal rated coil voltage, at 25 °C		

Figure 1 - Radio Frequency Curves

Note:
Radio frequency curves are typical characteristics based on factory knowledge. Tests to ensure compliance on RF performance, are not performed.





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Typical Characteristics

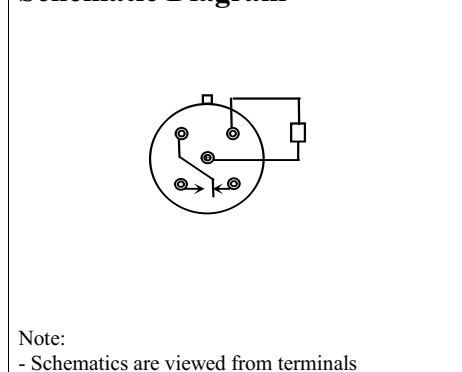
Coil Variant Code	Coil Voltage Vdc		Coil resistance Ω $\pm 10\%$ at 25 °C	Operated Voltage V dc Max. at		Release Voltage Vdc			
	Rated	Max.		25°C		Non-release at		Must-release at	
				25°C	125°C	25°C	125°C	25°C	- 65°C
01	5,0	8,0	125	2,8	3,7	1,4	2,4	0,23	0,15
02	6,0	11,0	255	3,5	4,5	2,0	2,8	0,28	0,18
03	9,0	16,0	630	5,3	6,8	3,0	4,2	0,54	0,35
04	12,0	22,0	1025	7,0	9,0	4,0	5,6	0,63	0,40
05	18,0	33,0	2300	10,5	13,5	6,0	8,4	0,91	0,58
06	26,5	45,0	4000	14,2	18,0	8,0	10,4	1,37	0,89
07	32,0	57,0	6500	18,7	24,0	10,6	15,0	1,59	1,0
08	40,0	75,0	11000	23,3	30,0	13,3	18,7	2,0	1,3

Terminal Variants

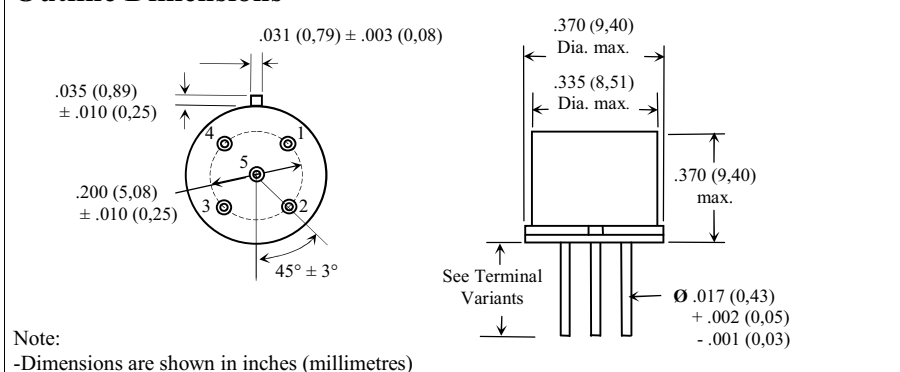
01	02	03

Note: Dimensions are shown in inches (millimetres)

Schematic Diagram



Outline Dimensions



How to Order

CECC 16101 - 006 - 06 - 02			
CECC Specification No.			Terminal and Mounting Variant
Type Code (CECC registration No.)			Coil Variant Code