



GENERAL INFORMATION SELECTOR CHART

Series	Series Types	Enclosure	Contacts		Nominal Coil Voltage or Current	Operating Power at P.I. (mW)	Applicable Specification Approvals							
			Arrangement	Rating			MILITARY		CECC					
							Mil-PRF-39016/	Mil-PRF-28776/	16101-	16207-				
MA	MA	TO-5	DPDT	1A / 28 Vdc	5...30,0 Vdc	130	9							
	MA-D				5...26,5 Vdc		15							
	MA-DD						20							
	MA-T							1						
MA2		TO-5	DPDT	1A / 28 Vdc	5...30,0 Vdc	130			003					
MCA		TO-5	DPDT	2A / 28 Vdc	5...26,5 Vdc	150								
MS	MS	TO-5	DPDT	1A / 28 Vdc	5...48,0 Vdc	60	11							
	MS-D						16							
	MS-DD						21							
	MS-T							3						
MS2		TO-5	DPDT	1A / 28 Vdc	5...48,0 Vdc	60			004					
1MA	1MA	TO-5	SPDT	1A / 28 Vdc	5...26,5 Vdc	100	7							
	1MA-D						23							
	1MA-DD						24							
	1MA-T							5						
1MA1		TO-5	SPDT	1A / 28 Vdc	5...26,5 Vdc	100			005					
1MS	1MS	TO-5	SPDT	1A / 28 Vdc	5...40,0 Vdc	50	10							
	1MS-D						25							
	1MS-DD						40							
	1MS-T						50		4					
1MS1		TO-5	SPDT	1A / 28 Vdc	5...40,0 Vdc	50			006					
	MGA	CUBIC .100GRID	DPDT	1A / 28 Vdc	5...26,5 Vdc	130	17							
	MGA-D						18							
MGA-DD	150													
MGAE	MGAE	CUBIC .100GRID	DPDT	1A / 28 Vdc	5...28,0 Vdc	130				801				
	MGAE-D													
	MGAE-DD						150							
MGA2	MGA2/D2	CUBIC	DPDT	1A / 28 Vdc	5...28,0 Vdc	140			007					
MGS	MGS	CUBIC .100GRID	DPDT	1A / 28 Vdc	5...48,0 Vdc	60	41							
	MGS-D						42							
	MGS-DD						43							
MGSE	MGSE	CUBIC .100GRID	DPDT	1A / 28 Vdc	5...48,0 Vdc	60				802				
	MGSE-D													
	MGSE-DD													
MGS2	MGS2/D2	CUBIC	DPDT	1A / 28 Vdc	5...48,0 Vdc	60			008					
12K		1/2 CC	DPDT	2A / 28 Vdc	5...26,5 Vdc	250	6							
2K		1/2 CC	DPDT	2A / 28 Vdc	5...48,0 Vdc	250								
2K6600		1/2 CC	DPDT	2A / 28 Vdc	5...48,0 Vdc	250				007.014.021				
							MILITARY Compliance							
							Mil-R-39016/	Mil-R-5757/						
2K7940		1/2 CC	DPDT	2A / 28 Vdc	6...26,5 Vdc	250	22							
KA	2KA	1/2 CC	DPDT	2A / 28 Vdc	5...48,0 Vdc	100								
HA	2HA	1/2 CC	DPDT	5A / 28 Vdc	5...48,0 Vdc	300								
B	2B	CC	DPDT	2A / 28 Vdc	6...76,0 Vdc	250								
	2BR				26,5...115 Vac		370							
2B6660		CC	DPDT	3A / 28 Vdc	6...76,0 Vdc	250			008					
2B7506		CC	DPDT	2A / 28 Vdc	6...26,5 Vdc	250			10					
	BS						CC	DPDT	2A / 28 Vdc	6...26,5 Vdc	100			
	2BSA											CC	SPDT	2A / 28 Vdc
1BSK	CC	DPDT	2A / 28 Vdc	3,2...70,6mA	40									
2BSK						CC	DPDT	2A / 28 Vdc	4,0...89,2mA	40				
BN	1BN	CC	SPDT	5A / 28 Vdc	6...76,0 Vdc						280			
	2BN					CC	DPDT	2A / 28 Vdc	4,0...90,0mA	40				
2BC7201		CC	DPDT	2A / 28 Vdc	4,0...90,0mA						40		13	
BCN	1BCN	CC	SPDT	5A / 28 Vdc	6...40,0 Vdc	80								
	2BCN						CC	DPDT	2A / 28 Vdc	6...115 Vdc	400			
4B		CC	4PDT	2A / 28 Vdc	6...115 Vdc	400								
T	2T	CC	DPDT	10A / 28 Vdc	6...115 Vdc	500								
	2TR				115 Vac									
TN	2TN	CC	DPDT	15A / 28 Vdc	6...115 Vdc	500								
	2TNR				115 Vac									
2T7188		CC	DPDT	10A / 28 Vdc	6...120 Vdc	500			23					
RFK	RFK	1/2 CC	SPDT	2A / 28 Vdc	6...26,5 Vdc	250								
	2REFK						CC	DPDT	2A / 28 Vdc	6...76,5 Vdc	250			
RFB	RFB	CC	SPDT	2A / 28 Vdc	6...76,5 Vdc	250								
	2RFB						CC	DPDT	2A / 28 Vdc	4,0...89,2 mA	40			
RFBC	RFBC	CC	SPDT	2A / 28 Vdc	4,0...89,2 mA	40								
	2RFBC						CC	DPDT	1A / 28 Vdc	5,0...30,0 Vdc	260			
4MA		CC	4PDT	1A / 28 Vdc	5,0...30,0 Vdc	260								
4MS		CC	4PDT	1A / 28 Vdc	5,0...48,0 Vdc	120								



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 patterns. Available in a variety of sensitivities, contact configurations and hybrid versions 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 amp. 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 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

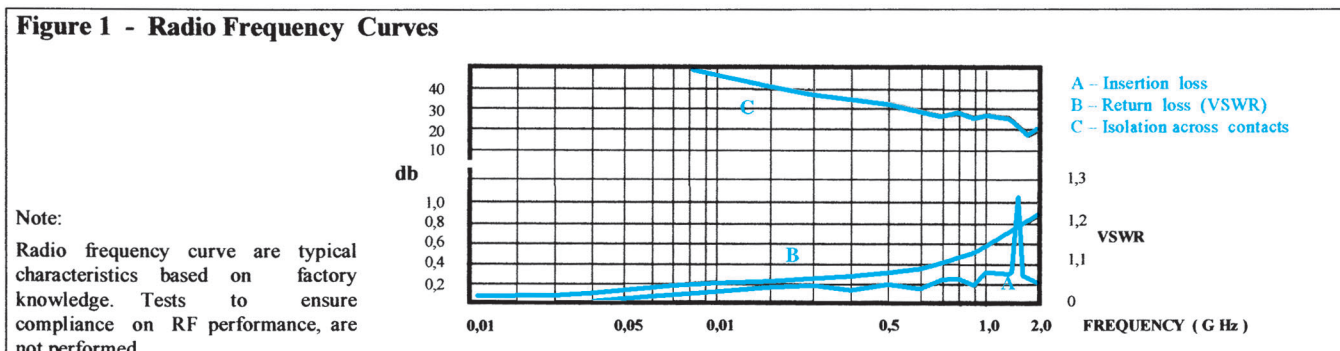
Temperature (Ambient)	-65°C to +125°C
Shock	75 g's, 6 msec., half sine wave
Vibration (sinusoidal)	30 g's, 10 to 2000 Hz, 1,5 amplitude peak
Bump	40 g's, 6 msec.,
Sealing	All welded, Hermetic
Weight	0,1 oz. (2,84 grams) max.
Finish	Bright tin lead plated terminals and case



Electrical Characteristics (over the temperature range, unless otherwise noted)

Coil Data	See Typical Characteristics chart		
Contact Rating (Note : All ratings with grounded case)	Type Load	Contact Load	Cycles min.
	Low Level	10 mA / 30 mV	1.000.000
	Resistive	1 Amp / 28 Vdc,	100.000
	Resistive Overload	2 Amp / 28 Vdc	100
	Inductive	0,1 Amp / 28 Vdc (320 mH)	100.000
Contact Resistance	0,1 ohm max. initial, 0,2 ohm max. after life		
Operate Time	4,5 msec. max. at 25°C		
Release Time	3,0 msec. max. at 25°C		
Contact Bounce	2,0 msec. max. at 25°C		
Dielectric Strength	500 Vrms min. , 60 Hz, all points at sea level		
Insulation Resistance	10.000 megohms min. all points at 500 Vdc		
Intercontact Capacitance	0.7 pF typical		
Sensitivity	50 milliwatts at pick-up, 200 milliwatts at nominal rated coil voltage, at 25 °C		

Figure 1 - Radio Frequency Curves





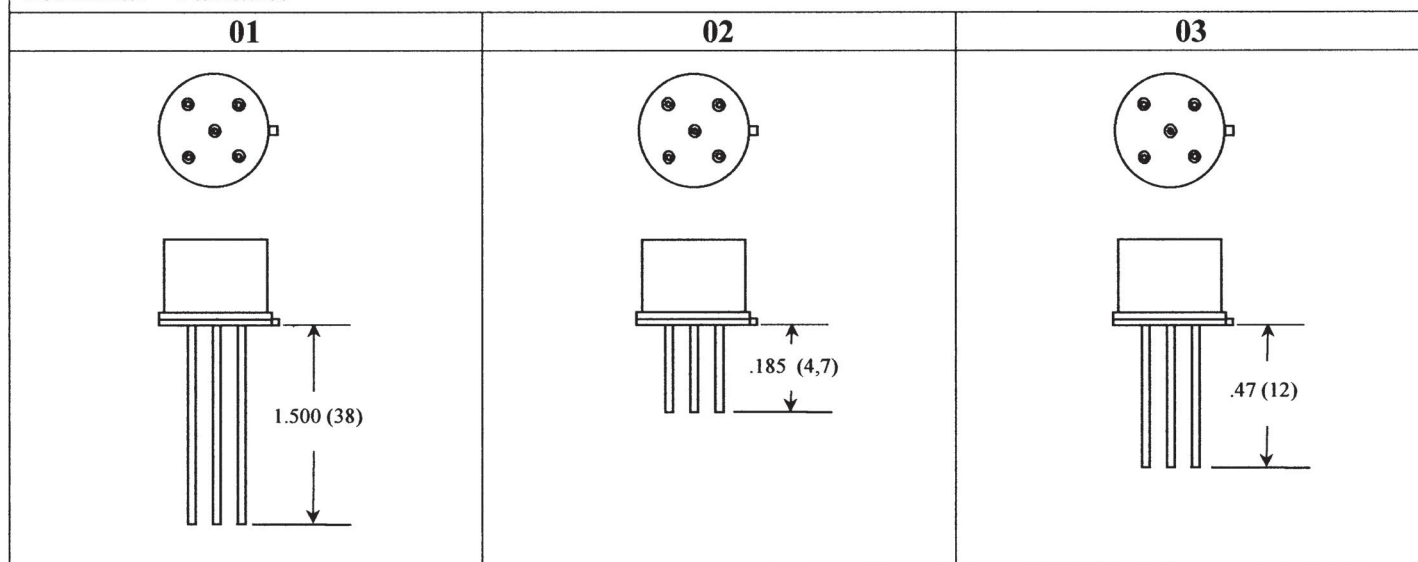
SENSITIVE TO-5 CASE RELAY SPDT

Series
1MS1

Typical Characteristics

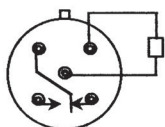
Coil Variant Code	Coil Voltage V dc		Coil Resistance ohms ± 10% at 25 °C	Operated Voltage V dc Max. at		Release Voltage V dc			
	Rated	Max.		25 °C	125 °C	Non-release at		Must-release at	
						25 °C	125 °C	25 °C	-65 °C
01	5,0	8,0	125	2,8	3,7	1,4	2,4	0,23	0,15
02	6,0	11,0	255	3,5	4,5	2,0	2,8	0,28	0,18
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



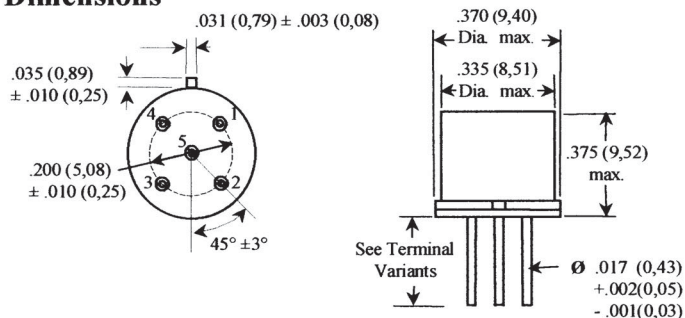
Note : - Dimensions are shown in inches (millimetres)

Schematic Diagram



Note : - Schematics are viewed from terminals

Outline Dimensions



Note : - Dimensions are shown in inches (millimetres)

How to Order

CECC 16101 -006 -06 -02

CECC Specification No.

Terminal Variant

Type Code (CECC registration No.)

Coil Variant Code