

**Double Pole, Electrically Held, 1 Amp and Less (Continued)**

**Microwave Switching,  
Hermetically Sealed, DPDT  
MW4 & MW4HP Models  
4 GHz. Switching**

**Electrical Characteristics**

**Contact Arrangement** —  
2 Form C (DPDT)

**Contact Resistance** —  
Before life — 100 milliohms, max.  
(measured @ 10 mA @ 6 VDC)  
After life — 200 milliohms, max.  
(measured @ 1 A @ 28 VDC)

**Mechanical Life Expectancy** —  
10 million operations

**Coil Voltages** —  
5, 12, 18 & 26.5 VDC (MW4)  
5, 6, 9, 12, 18 & 26.5 VDC (MW4HP)

**Coil Power** (mW max. @ 25°C) —  
MW4 MW4S MW4HP MW4HPS  
675 565 673 563

**Duty Cycle** — Continuous

**Pick-up Voltage** —  
MW4 — Approx 70% of nominal.  
MW4HP — Approx 50% of nominal.

**Pick-up Sensitivity** (mW max. @  
25°C) —  
MW4 MW4S MW4HP MW4HPS  
180 90 123 68

**Operating Characteristics**

**Operate Time** (ms max.) —  
MW4 MW4S MW4HP MW4HPS  
4.0 6.0 2.0 4.0

**Release Time** (ms max.)  
MW4 MW4S MW4HP MW4HPS  
3.0 3.0 1.5 2.0

**Bounce Time** (ms max.)  
MW4 MW4S MW4HP MW4HPS  
— — 1.5 1.5

**Dielectric Withstanding Voltage** —  
Between Open Contacts,  
Between Adjacent Contacts and Between  
Contacts and Coil —  
MW4 types — 350 Vrms, 60 Hz.  
MW4HP types — 500 Vrms, 60 Hz.

**Insulation Resistance** —  
1,000 megohms @ 500 VDC

**Environmental Characteristics**

**Temperature Range** —  
MW4 types — -55°C to +85°C.  
MW4HP types — -65°C to +125°C.

**Weight** —  
MW4, MW4HP: 0.09 oz. (2.55 g)  
MW4S, MW4HPS: 0.12 oz. (3.40 g).

**Vibration Resistance** —  
MW4 types — 10 G's, 10-500 Hz.  
MW4HP types — 30 G's, 10-3,000 Hz

**Shock Resistance** —  
MW4 types — 30 G's, 6 ± 1 ms.  
MW4HP types — 100 G's, 6 ± 1 ms.

**Contact Ratings**

Contact Load	Type	Operations Min.
1.0A @ 28VDC	Resistive	100,000
200mA @ 28VDC (300mH)*	Inductive	100,000
30µA @ 50mVDC	Low Level	10,000,000

\* The inductive rating is only applicable to high performance models (MW4HP and MW4HPS).

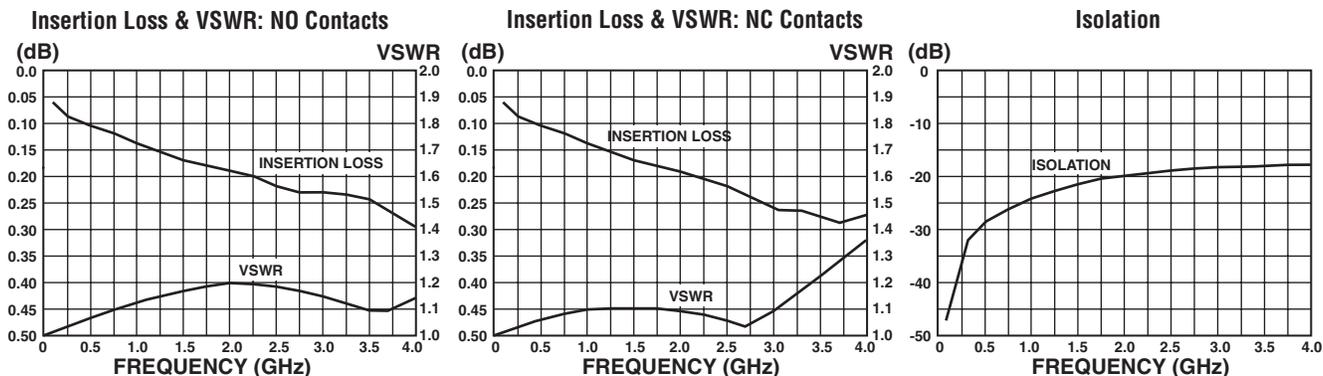
**Coil Data**

MW4 Models							
Nominal Coil Voltage (VDC)	Coil Resistance In Ohms ±20% @ 25°C	Pickup Voltage VDC (Max.) @ 25°C	Nominal Coil Power (mW) @ 25°C	Maximum Coil Voltage	Coil Desig.		
<b>Standard Coil</b>							
5.0	50	3.6	500	5.8	5		
12.0	390	8.4	369	16.0	12		
18.0	880	13.0	368	24.0	18		
26.5	1,560	17.0	450	32.0	26		
<b>Sensitive Coil</b>							
5.0	100	3.5	250	7.5	5		
12.0	850	9.0	169	20.0	12		
18.0	1,600	13.5	203	30.0	18		
26.5	3,300	18.0	213	40.0	26		
MW4HP (High Performance) Models							
Nominal Coil Voltage (VDC)	Coil Res. in Ohms ±10% @ 25°C	Pickup V VDC (Max.) @ 25°C	Release V VDC (Max.) @ 25°C	Release V VDC (Min.) @ 25°C	Nominal Coil Power (mW) @ 25°C	Maximum Coil Voltage	Coil Desig.
<b>Standard Coil</b>							
5.0	50	2.7	1.4	0.22	500	5.8	5
6.0	98	3.5	2.0	0.28	367	8.0	6
9.0	220	5.3	3.0	0.54	368	12.0	9
12.0	390	7.0	4.0	0.63	369	16.0	12
18.0	880	10.5	6.0	0.91	368	24.0	18
26.5	1,560	14.2	8.0	1.37	450	32.0	26
<b>Sensitive Coil</b>							
5.0	100	2.6	1.4	0.23	250	7.5	5
6.0	200	3.4	2.0	0.28	180	10.0	6
9.0	400	4.85	3.0	0.55	203	15.0	9
12.0	850	7.0	4.0	0.64	169	20.0	12
18.0	1,600	9.8	6.0	0.92	203	30.0	18
26.5	3,300	14.0	8.0	1.4	213	40.0	26

## Double Pole, Electrically Held, 1 Amp and Less (Continued)

### Microwave Switching, Hermetically Sealed, DPDT

### MW4 & MW4HP Models 4 GHz. Switching (Continued)



#### Test Conditions

**Test Board** — 0.031" double sided copper clad, PTFE based laminate.

**Connections** — Relay header is soldered to ground plane. Relay terminals are soldered to through holes. SMA connectors are soldered to circuit traces.

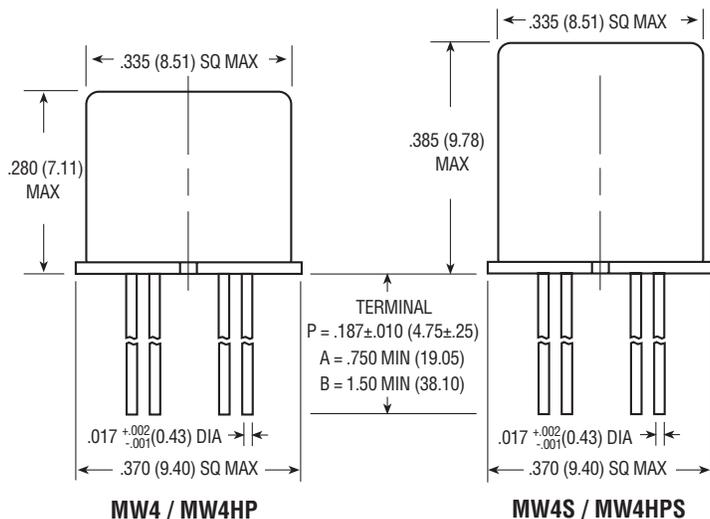
**Temperature** — Room ambient.

**Signal Strength** — 0 dBm.

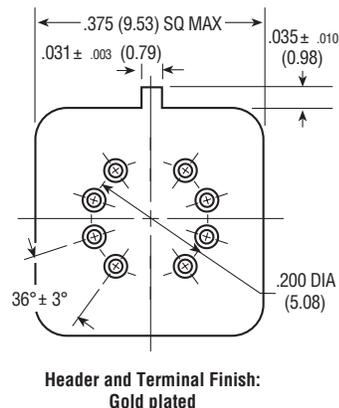
#### Notes:

1. Unused terminals were terminated with 50 ohm impedance load.
2. All readings are typical.

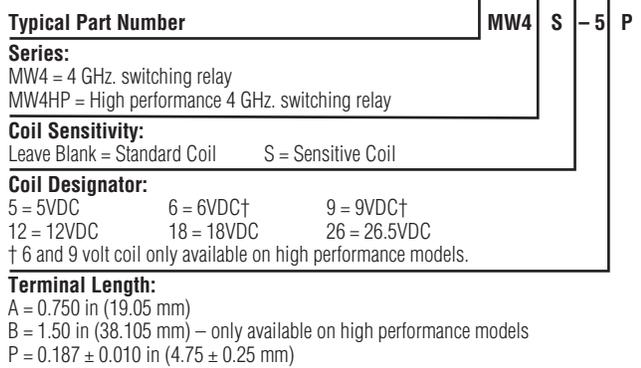
#### Enclosures



#### Header



#### Part Numbering System



#### Wiring Diagram

