

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

Microwave Switching, Hermetically Sealed, DPDT MW6 & MW6HP Models 6 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 (MW6)
5, 6, 9, 12, 18 & 26.5 VDC (MW6HP)

Coil Power (mW max. @ 25°C) —
MW6 MW6S MW6HP MW6HPS
675 565 673 563

Duty Cycle — Continuous

Pick-up Voltage —
MW6 — Approx 70% of nominal.
MW6HP — Approx 50% of nominal.

Pick-up Sensitivity (mW max. @
25°C) —
MW6 MW6S MW6HP MW6HPS
180 90 123 68

Operating Characteristics

Operate Time (ms max.) —
MW6 MW6S MW6HP MW6HPS
4.0 6.0 2.0 4.0

Release Time (ms max.)
MW6 MW6S MW6HP MW6HPS
3.0 3.0 1.5 2.0

Bounce Time (ms max.)
MW6 MW6S MW6HP MW6HPS
— — 1.5 1.5

Dielectric Withstanding Voltage —
Between Open Contacts,
Between Adjacent Contacts and
Between Contacts and Coil —
MW6 types — 350 Vrms, 60 Hz.
MW6HP types — 500 Vrms, 60 Hz.

Insulation Resistance —
1,000 megohms @ 500 VDC

Environmental Characteristics

Temperature Range —
MW6 types — -55°C to +85°C.
MW6HP types — -65°C to +125°C.

Weight —
MW6, MW6HP: 0.09 oz. (2.55 g)
MW6S, MW6HPS: 0.12 oz. (3.40 g).

Vibration Resistance —
MW6 types — 10 G's, 10-500 Hz.
MW6HP types — 30 G's, 10-3,000 Hz

Shock Resistance —
MW6 types — 30 G's, 6 ± 1 ms.
MW6HP types — 100 G's, 6 ± 1 ms.

Contact Ratings

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

* The inductive rating is only applicable to high performance models (MW6HP and MW6HPS).

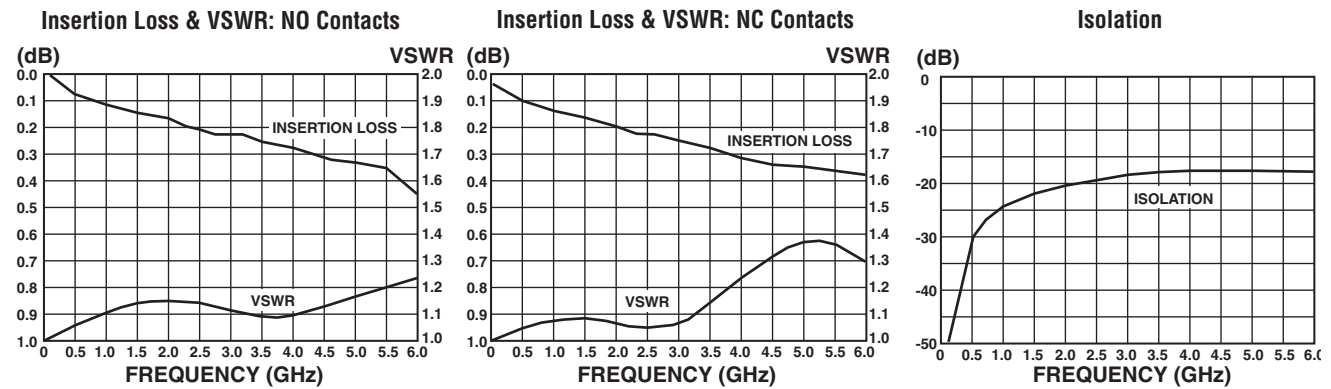
Coil Data

MW6 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.		
Standard Coil							
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		
Sensitive Coil							
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		
MW6HP (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.
Standard Coil							
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
Sensitive Coil							
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

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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.

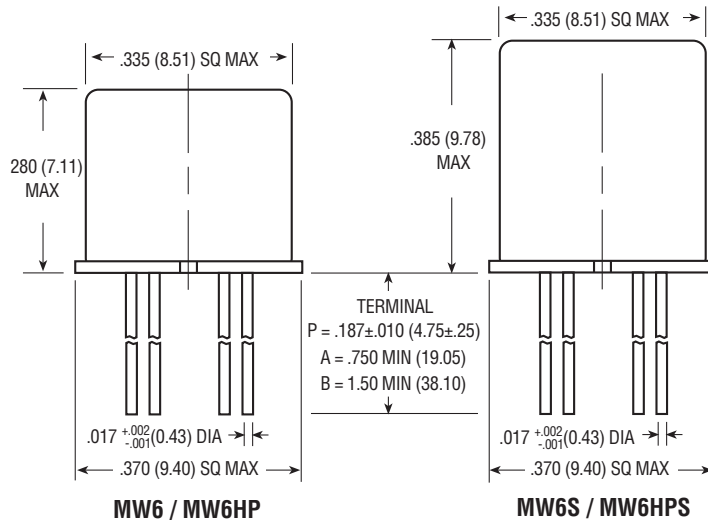
Temperature — Room ambient.

Signal Strength — 0 dBm.

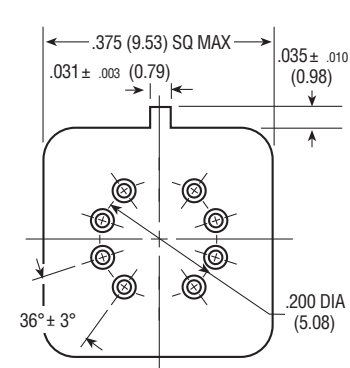
Notes:

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

Enclosures



Header

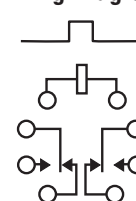


Header and Terminal Finish:
Gold plated

Part Numbering System

Typical Part Number	MW6	S	-5	P
Series:				
MW6 = 6 GHz. switching relay				
MW6HP = High performance 6 GHz. switching relay				
Coil Sensitivity:				
Leave Blank = Standard Coil		S = Sensitive Coil		
Coil Designator:				
5 = 5VDC	6 = 6VDC†	9 = 9VDC†		
12 = 12VDC	18 = 18VDC	26 = 26.5VDC		
† 6 and 9 volt coil only available on high performance models.				
Terminal Length:				
A = 0.750 in (19.05 mm)				
B = 1.50 in (38.105 mm) — only available on high performance models				
P = 0.187 ± 0.010 in (4.75 ± 0.25 mm)				

Wiring Diagram



Terminal View