

## Ratings

DPDT (2 form C) contacts, 5 amp  
@ 29VDC

## Description

Miniature DPDT relay  
5 amp contact rating  
AC or DC coils  
50g operational shock  
Temperature Range—  
MH: -55°C to +85°C  
MHB: -65°C to +125°C  
Weight: 2.0 ounces maximum  
Enclosure: Hermetically sealed  
Terminals: Plug-in, printed circuit, or  
hook-type solder terminals

## Performance Data

Operate Time: 8ms or less

Release Time:

5ms maximum (DC coil)  
25ms maximum (AC coil)

Initial Contact Resistance:

0.05 ohms max.

Contact Rating:

Non-Inductive:

Low level up to 5 amp @ 29VDC  
Low level up to 2 amp @ 115VAC, 60 to  
400Hz (10, case not grounded)  
0.3 amp @ 115VAC, 60 to 400Hz  
(10, case grounded)

Inductive:

1 amp @ 29VDC  
1 amp @ 115VAC, 60 to 400Hz  
(10, case not grounded)  
0.3 amp @ 115VAC, 60 to 400Hz  
(10, case grounded)

Higher AC ratings available—  
consult factory.

Dielectric Strength

1,000V rms at sea level  
500V rms at 70,000 feet  
350V rms at 80,000 feet

Vibration: 5-34Hz at 0.25 inch double  
amplitude, 34-1000Hz at 15g.

Shock: 50g operational; 100g mechanical

Ambient Temperature:

MH Series: -55°C to +85°C  
MHB Series: -65°C to +125°C

## Approvals

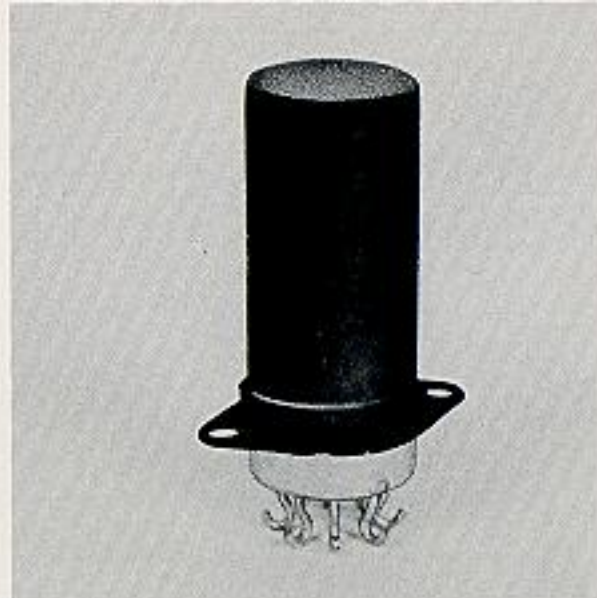
MIL-R-5757, as applicable

## Ordering Information

MH  I  II  III

- I. Mounting and terminal variation
- II. 6A or 6D (DPDT)
- III. Coil voltage or mADC

Example: MHBO-6D-48VDC calls for relay  
rated from -65°C to +125°C, socket  
mounting with straight pins—DPDT—  
48 volts.



## Type Designation and Coil Data

Relay Type	DC Nominal Coil Data			Maximum Pick-up Voltage	
	Volts	Amperes	Ohms*	@ +25°C	@ +85°C
MH-6D-6VDC	6	.364	16.5	3.5	4.0
MH-6D-12VDC	12	.146	82	6.5	8.5
MH-6D-26.5VDC	26.5	.066	400	14.5	18.0
MH-6D-48VDC	48	.036	1350	28.0	33.0
MH-6D-115VDC	115	.018	6500	59.0	78.0
Temperature rise at rated voltage: 55°C above 25°C; 45°C above 85°C					
MHB-6D-6VDC	6	.376	16	3.2	4.0
MHB-6D-12VDC	12	.184	65	6.2	8.5
MHB-6D-26.5VDC	26.5	.082	325	13.0	18.0
MHB-6D-48VDC	48	.048	1000	26.0	33.0
MHB-6D-115VDC	115	.019	6000	58.0	78.0

## Current Adjusted Relays

Relay Type	Maximum Pick-up mA	Ohms*	Nominal Operating Current
MHB-6D-10mADC	10.0	6,500	15mA
MHB-6D-8mADC	8.0	10,000	12mA
MHB-6D-6.5mADC	6.5	15,900	9.75mA

## AC Coil Relay (60 to 400 Hz with self-contained diodes)

Relay Type	Nominal Voltage	Coil Resistance Ohms*	Frequency Range
MHB-6A-115VAC	115	2 coils** each 4215	45 to 420 Hz

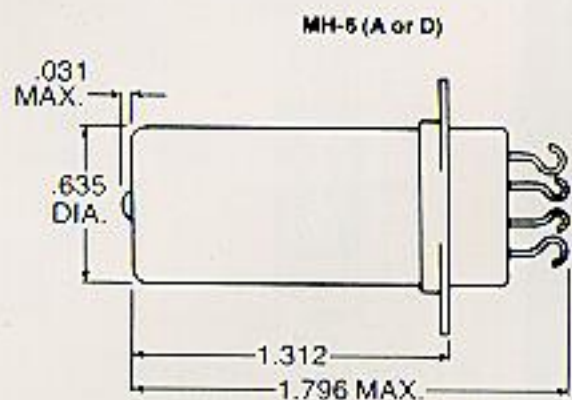
\*DC coil resistance—standard tolerance  $\pm 10\%$ .

Other values of resistance can be supplied.

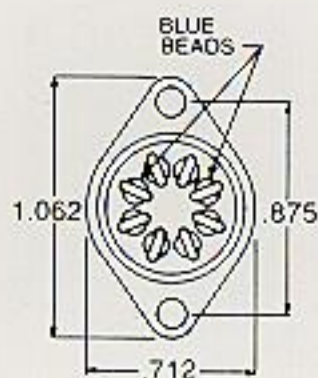
\*\*Diodes used in AC relays rated at 600 P. I. V. minimum.

Diodes with higher ratings can be supplied. Consult factory.



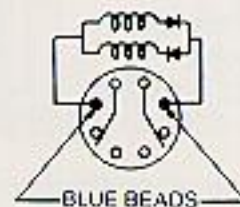


MH-5 (A or D)



BLUE BEADS

BLUE BEADS



BLUE BEADS

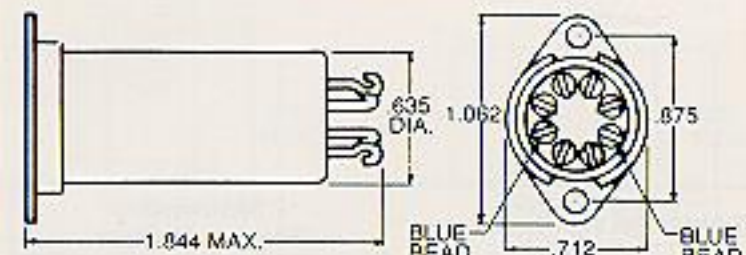
MOUNTING .125 DIA. HOLES (2)  
DIMENSIONAL TOLERANCE: ±.010

DC  
CIRCUIT DIAGRAM  
UNENERGIZED

AC  
CIRCUIT DIAGRAM  
UNENERGIZED

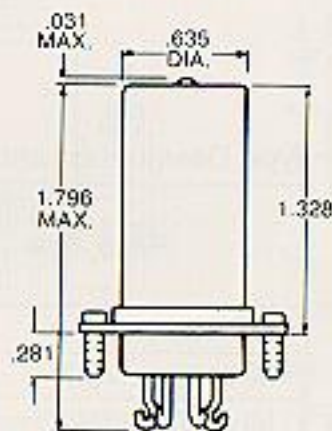
Mounting Variations

MHD-6 (A or D)

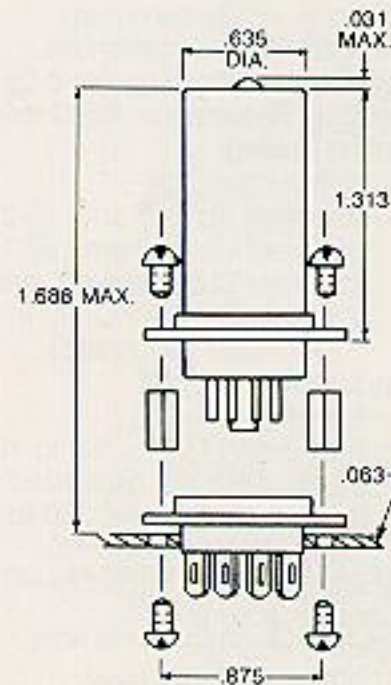


MOUNTING—.125 DIA. HOLES (2)

MHE-6 (A or D)

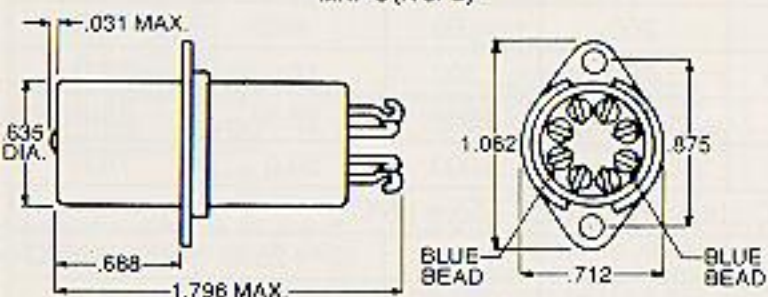


MHO-6 (A or D)

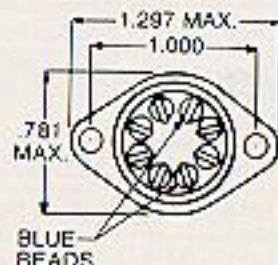


AVAILABLE FROM  
ARMEL ELECTRONICS

MHF-6 (A or D)

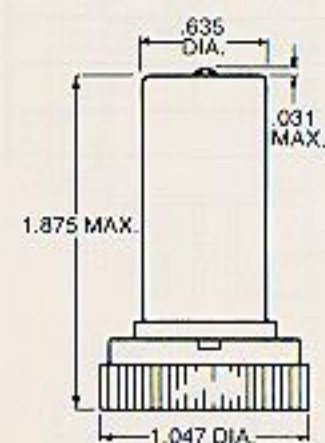


MOUNTING—.125 DIA. HOLES (2)

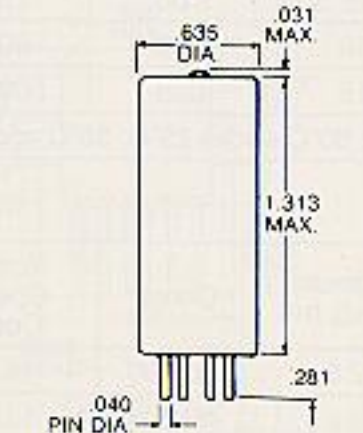


MOUNTING #4-40 NC-2A STUDS (2)

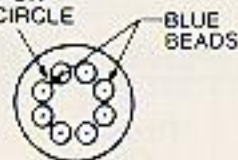
MHN-6 (A or D)



MHP-6 (A or D)



8 PINS EQUALLY  
SPACED ON  
.412 DIA. CIRCLE



Legend:

- MH-6D, MHB-6A or D
- MHD-6D, MHBD-6A or D
- MHE-6D, MHBE-6A or D
- MHF-6D, MHBF-6A or D
- MHN-6D, MHN-6A or D
- MHO-6D, MHBO-6A or D
- MHP-6D, MHBP-6A or D

- Standard mounting with hook pins
- Top flange mounting with hook pins
- Bottom mounting with studs in flange, hook pin terminals
- Center of gravity mounting, hook pins
- AN connector terminal and mounting
- Socket mounting with straight pins
- Printed circuit mounting with straight pins
- Additional variations available upon request.



## Ratings

4PDT (4 form C) contacts, 5 amp @ 29VDC, 2 amp @ 115VAC

## Description

Miniature 4PDT relay

5 amp contact rating

AC or DC coils

50g operational shock

Temperature range:

MH: -55°C to +85°C

MHB, MHJ: -65°C to +125°C

Vibration level:

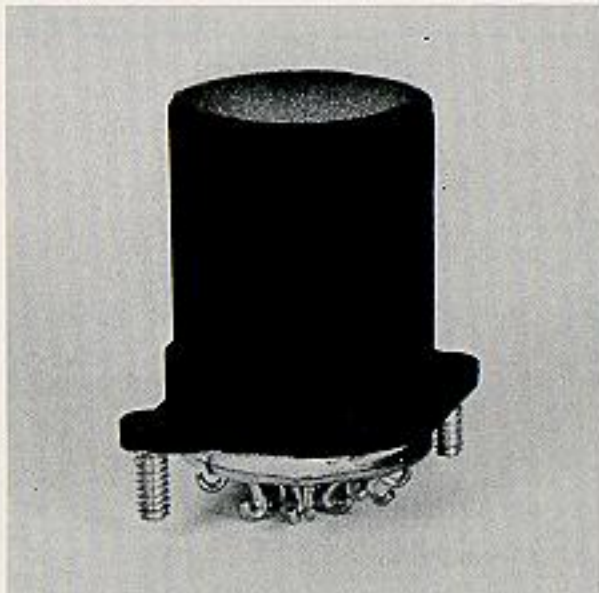
MH, MHB: up to 1000Hz at 15g

MHJ: up to 2000Hz at 20g

Weight: 3 ounces maximum

Enclosure: Hermetically sealed

Terminals: Plug-in, printed circuit, or hook-type solder terminals



## Performance Data:

Operate Time: 10ms maximum

Release Time:

DC coil—5ms maximum

AC coil—25ms maximum

Initial Contact Resistance: 0.05 ohms max.

Insulation Resistance: 1000 megohms min.

Contact Rating:

Non-inductive:

Low level up to 5 amp @ 29VDC

Low level up to 2 amp @ 115VAC, 60 to 400Hz (10, case not grounded)

0.3 amp @ 115VAC, 60 to 400Hz (10, case grounded)

Inductive:

1 amp @ 29VDC

1 amp @ 115VAC, 60 to 400Hz (10, case not grounded)

0.3 amp @ 115VAC, 60 to 400Hz (10, case grounded)

Higher AC ratings available—consult factory.

Dielectric strength

1000V rms at sea level

500V rms at 70,000 feet

350V rms at 80,000 feet

Vibration:

MH, MHB: 5-34Hz at 0.25 inch double amplitude, 34-1000Hz at 15g

MHJ: 5-28Hz at 0.5 inch double amplitude, 28-2000Hz at 20g

Shock: 50g operational—100g mechanical

Ambient Temperature:

MH: -55°C to +85°C

MHB, MHJ: -65°C to +125°C

## Approvals

MIL-R-5757, as applicable

## Ordering Information

MH     
I II III

I. Mounting and terminal variation

II. 12A or 12D (4PDT)

III. Coil voltage or mADC

Example: MHB-12D-6VDC calls for relay with temperature range from -65°C to +125°C, vibration level up to 1000Hz at 15g—standard mounting with hook pin terminals—4PDT—6 volts DC.

## Type Designation and Coil Data

Relay Type	DC Nominal Coil Data			Maximum Pick-up Voltage	
	Volts	Amperes	Ohms*	@ +25°C	@ +85°C
MH-12D-6VDC	6	.400	16	3.5	4.0
MH-12D-12VDC	12	.200	60	6.5	8.5
MH-12D-26.5VDC	26.5	.089	300	14.5	18.0
MH-12D-48VDC	48	.048	1000	28.0	33.0
MH-12D-115VDC	115	.023	5000	59.0	78.0
Temperature rise at rated voltage: 55°C above 25°C; 45°C above 85°C					
				@ +25°C	@ +125°C
MHB-(MHJ)-12D-6VDC	6	.461	13	3.2	4.0
MHB-(MHJ)-12D-12VDC	12	.240	50	6.2	8.5
MHB-(MHJ)-12D-26.5VDC	26.5	.106	250	13.0	18.0
MHB-(MHJ)-12D-48VDC	48	.060	800	26.0	33.0
MHB-(MHJ)-12D-115VDC	115	.023	5000	58.0	78.0
Temperature rises at rated voltage: 60°C above 25°C; 35°C above 125°C					

## Current Adjusted Relays

Relay Type	Maximum Pick-up mA	Ohms*	Nominal Operate Current
MHB-(MHJ)-12D-12mADC	12.0	5,000	18.0mA
MHB-(MHJ)-12D-9mADC	9.0	10,000	13.5mA
MHB-(MHJ)-12D-7.5mADC	7.5	16,000	11.25mA

## AC Coil Relay (60 to 400Hz with self-contained diodes)

Relay Type	Nominal Voltage	Coil Resistance Ohms*	Frequency Range
MHJ-12A-115VAC	115	2 coils** each 2765	45 to 420Hz

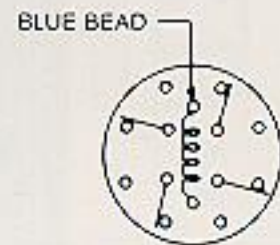
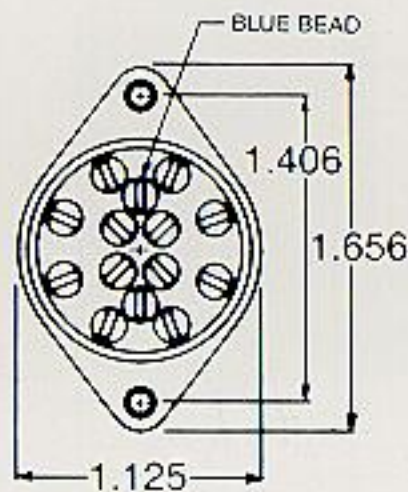
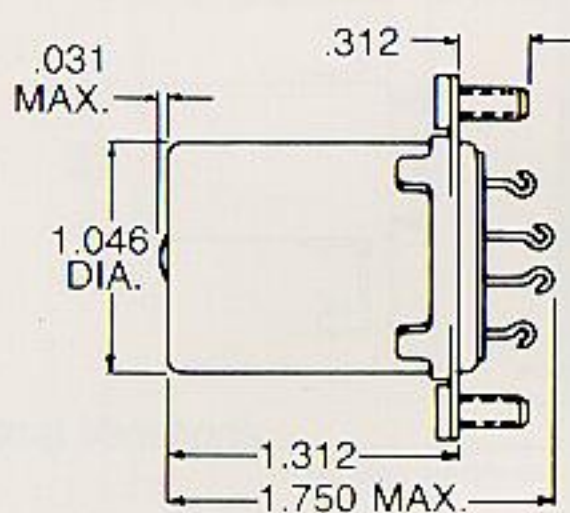
\*DC coil resistance—standard tolerance  $\pm 10\%$ .

Other values of resistance can be supplied.

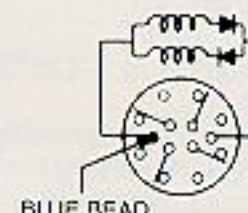
\*\*Diodes used in AC relays rated at 600 P. I. V. minimum.

Diodes with higher ratings can be supplied. Consult factory.





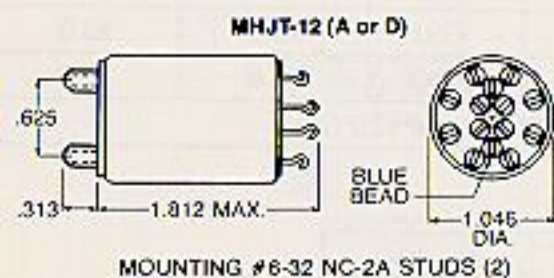
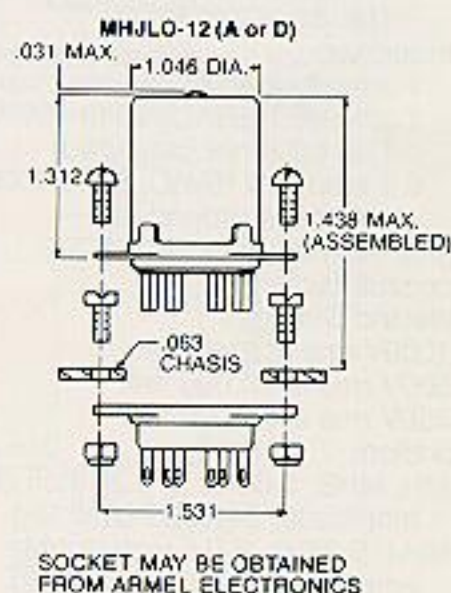
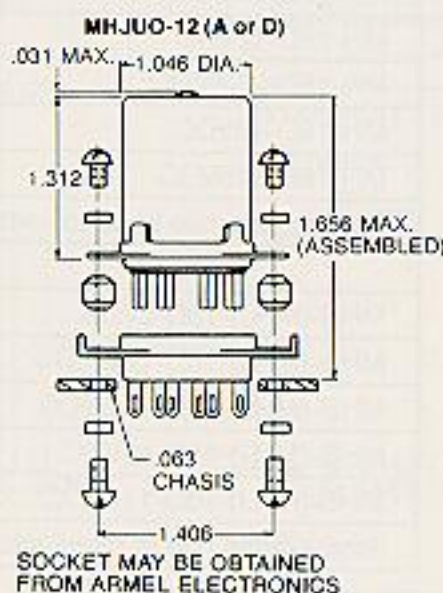
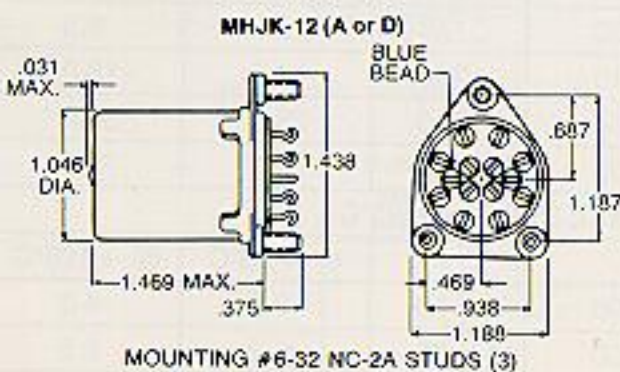
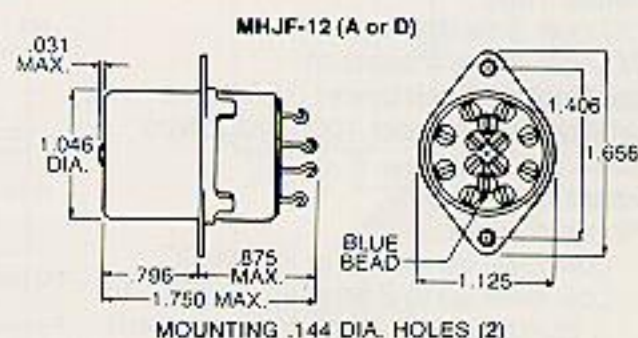
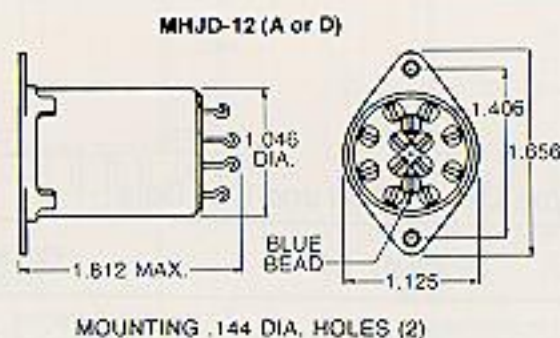
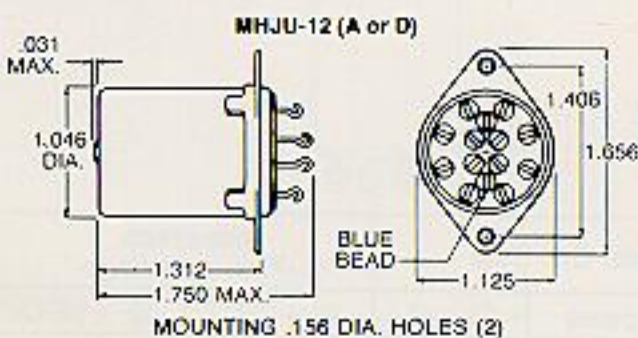
DC  
CIRCUIT DIAGRAM  
UNENERGIZED



AC  
CIRCUIT DIAGRAM  
UNENERGIZED

MOUNTING #6-32 NC-2A STUDS (2)  
Dimensional Tolerances  $\pm .010$ "

Mounting Variations



- Legend:
- MH-12D, MHB-12D, MHJ-12A or D
  - MHD-12D, MHB-12D, MHJD-12A or D
  - MHF-12D, MHB-12D, MHJ-12A or D
  - MHLO-12D, MHBLO-12D, MHJLO-12A or D
  - MHUO-12D, MHB-12D, MHJUO-12A or D
  - MHP-12D, MHB-12D, MHJP-12A or D
  - MHK-12D, MHBK-12D, MHJK-12A or D
  - MHT-12D, MHB-12D, MHJT-12A or D

- Stud mounting with hook pins
- Top flange mounting with hook pins
- Center of gravity mounting, hook pin
- Socket mounting with straight pins for ARMEL HRSB series socket (1.531 mounting center)
- Socket mounting with straight pins for ARMEL HRSB series socket (1.406 mounting center)
- Printed circuit mounting, no flange with straight pins
- Tri-point flange stud mounting with hook pins
- Top stud mounting with hook pins

Additional variations available upon request.



## Ratings

6PDT (6 form C) contacts,  
5 amp @ 29VDC, 2 amp @ 115VAC

## Description

Miniature 6PDT relay  
5 ampere contact rating  
AC or DC coils  
50g operational shock  
Temperature range:  
MH: -55°C to +85°C  
MHB, MHJ: -65°C to +125°C  
Vibration level:  
MH, MHB: up to 1000Hz at 15g  
MHJ: up to 2000Hz at 20g  
Weight: 4.2 ounces maximum  
Enclosure: Hermetically sealed  
Terminals: Plug in, printed circuit, or hook-type solder terminals



## Performance Data

Operate Time: 10ms maximum  
Release Time:  
DC coil: 5ms maximum  
AC coil: 25ms maximum  
Initial Contact Resistance: 0.05 ohms max.  
Insulation Resistance: 1000 megohms min.

## Contact Rating:

Non-inductive:  
Low level up to 5 amp @ 29VDC  
Low level up to 2 amp @ 115VAC, 60 to 400Hz (10, case not grounded)  
0.3 amp @ 115VAC, 60 to 400Hz (10, case grounded)

Inductive:  
1 amp @ 29VDC  
1 amp @ 115VAC, 60 to 400Hz (10, case not grounded)  
0.3 amp @ 115VAC, 60 to 400Hz (10, case grounded)

Higher AC ratings available—consult factory.

## Dielectric Strength:

1000V rms at sea level  
500V rms at 70,000 feet  
350V rms at 80,000 feet

## Vibration:

MH, MHB: 5-34Hz at 0.25 inch double amplitude, 34-1000Hz at 15g  
MHJ: 5-28Hz at 0.5 inch double amplitude, 28-2000Hz at 20g

Shock: 50g operational—100g mechanical

## Ambient Temperature:

MH: -55°C to +85°C  
MHB, MHJ: -65°C to 125°C

## Approvals

MIL-R-5757, as applicable

## Ordering Information

MH     
I II III

I. Mounting and terminal variation.  
II. 18A or 18D (6PDT)  
III. Coil voltage or mADC

Example: MH-18D-6VDC calls for relay with temperature range from -55°C to +85°C and vibration level up to 1000Hz at 15g—stud mounting with hook pin terminals—6PDT—6 volts DC.

## Type Designation and Coil Data

Relay Type	DC Nominal Coil Data			Maximum Pick-up Voltage	
	Volts	Amperes	Ohms*	@ +25°C	@ +85°C
MH-18D-6VDC	6	.500	12	3.5	4.0
MH-18D-12VDC	12	.250	48	6.5	8.5
MH-18D-26.5VDC	26.5	.110	240	14.5	18.0
MH-18D-48VDC	48	.064	750	28.0	33.0
MH-18D-115VDC	115	.033	3500	59.0	78.0
Temperature rise at rated voltage: 60°C above 25°C; 35°C above 85°C					
				@ +25°C	@ +125°C
MHB-(MHJ)-18D-6VDC	6	.600	10	3.2	4.0
MHB-(MHJ)-18D-12VDC	12	.300	40	6.2	8.5
MHB-(MHJ)-18D-26.5VDC	26.5	.132	200	13.0	18.0
MHB-(MHJ)-18D-48VDC	48	.073	650	26.0	33.0
MHB-(MHJ)-18D-115VDC	115	.033	3500	58.0	78.0
Temperature rise at rated voltage: 70°C above 25°C; 45°C above 125°C					

## Current Adjusted Relays

Relay Type	Maximum Pick-up MA	Ohms*	Nominal Operate Current
MHB-(MHJ)-18D-13.5mADC	13.5	5,670	20.25mA
MHB-(MHJ)-18D-9.0mADC	9.0	14,000	12.0mA
MHB-(MHJ)-18D-7.0mADC	7.0	22,100	10.5mA

## AC Coil Relay (60 or 400Hz with self-contained diodes)

Relay Type	Nominal Voltage	Coil Resistance Ohms*	Frequency Range
MHJ-18A-115VAC	115	2 coils** each 2635	45 to 420Hz

\*DC coil resistance—standard tolerance  $\pm 10\%$ .

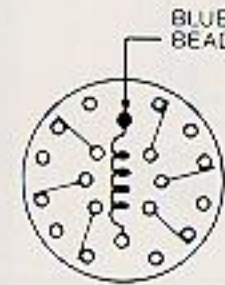
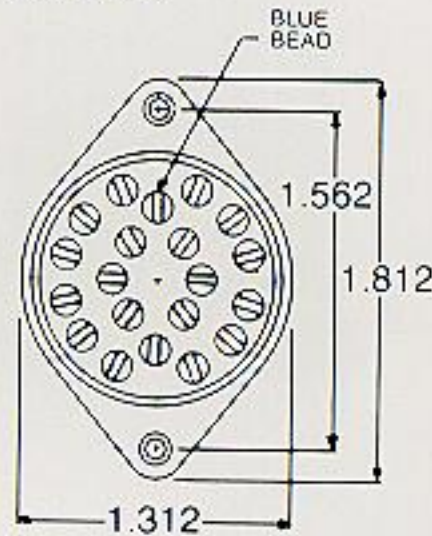
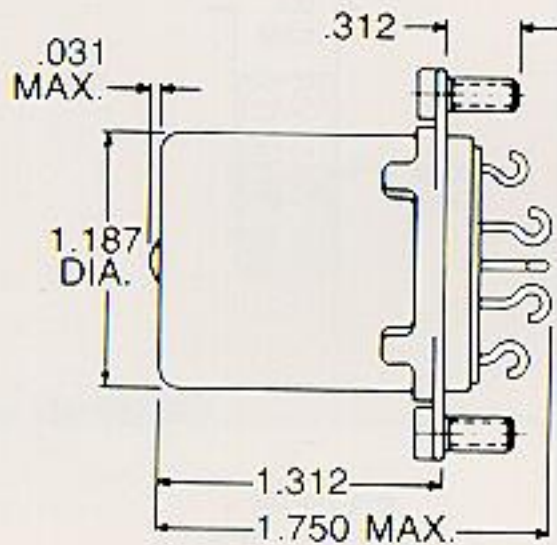
Other values of resistance can be supplied.

\*\*Diodes used in AC relays rated 600 P. I. V. minimum.

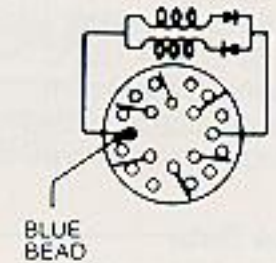
Diodes with higher ratings can be supplied. Consult factory.



MHJ-18 (A or D)



DC  
CIRCUIT DIAGRAM  
UNENERGIZED

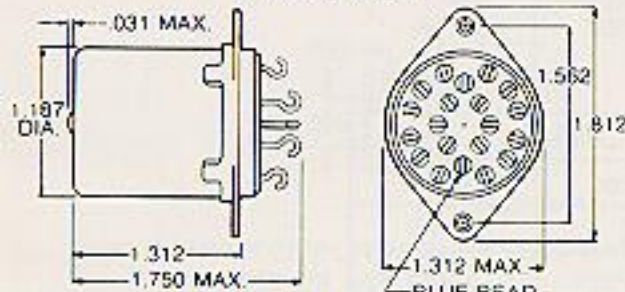


AC  
CIRCUIT DIAGRAM  
UNENERGIZED

MOUNTING #6-32 NC-2A STUDS (2)  
Dimensional Tolerances  $\pm .010^*$

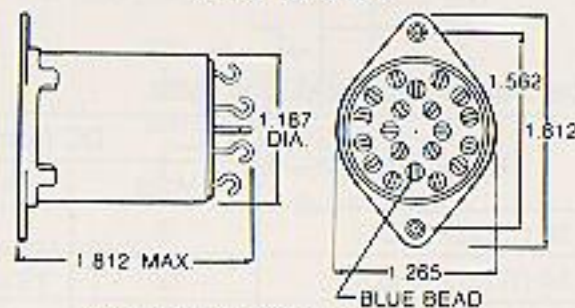
Mounting Variations

MHJU-18 (A or D)



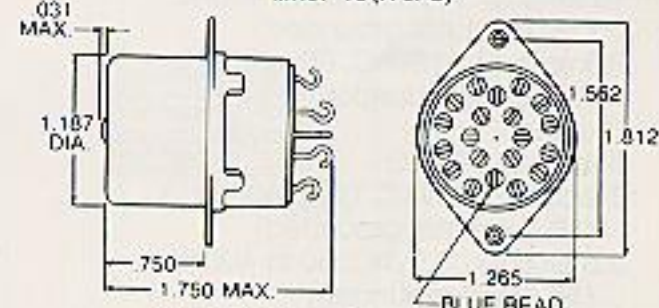
MOUNTING .152 DIA. HOLES (2)

MHJD-18 (A or D)



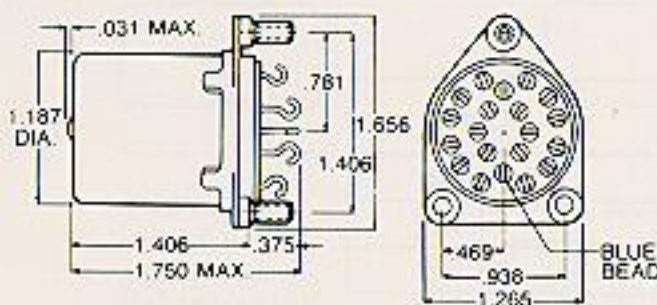
MOUNTING .144 DIA. HOLES (2)

MHJF-18 (A or D)



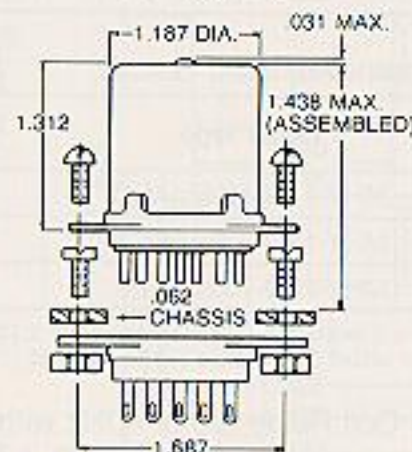
MOUNTING .144 DIA. HOLES (2)

MHJK-18 (A or D)



MOUNTING #6-32 NC-2A STUDS (3)

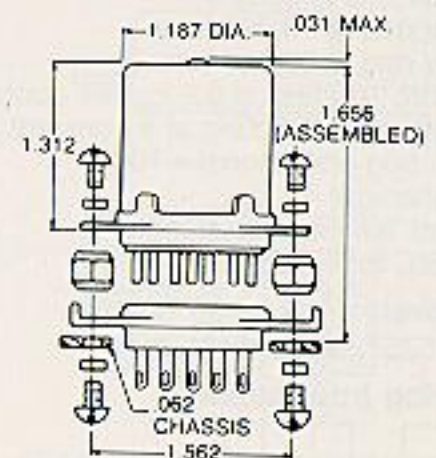
MHJLO-18 (A or D)



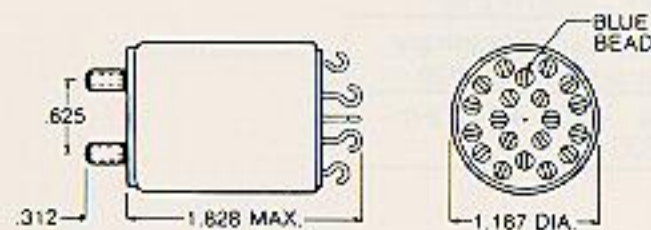
Legend:

- MH-18D, MHB-18D, MHJ-18A or D
- MHD-18D, MHBD-18D, MHJD-18A or D
- MHF-18D, MHBFD-18D, MHJF-18A or D
- MHLO-18D, MHBLO-18D, MHJLO-18A or D
- MHUO-18D, MHBEO-18D, MHJEO-18A or D
- MHP-18D, MHBPD-18D, MHJP-18A or D
- MHK-18D, MHBK-18D, MHJK-18A or D
- MHT-18D, MHBTD-18D, MHJT-18A or D

MHJEO-18 (A or D)



MHJT-18 (A or D)



MOUNTING #6-32 NC-2A STUDS (2)

- Stud mounting with hook pin terminals
- Top flange mounting with hook pin terminals
- Center of gravity mounting, hook pin terminals
- Socket mounting with straight pins for ARMEL HRL Series Socket (1.687 mounting center)
- Socket mounting with straight pins for ARMEL HRS Series Socket (1.562 mounting center)
- Printed circuit mounting, no flange with straight pins
- Tri-point flange, stud mounting with hook pins
- Top stud mounting with hook pins

Additional variations available upon request.