

INCH-POUND

MS25463H
 07 Dec 1993
 SUPERSEDING
 MS25463G
 30 September 1987

MILITARY SPECIFICATION SHEET

RELAYS, ELECTROMAGNETIC, 6PDT, 5 AMPERES, TYPE I,
 MAGNETIC LATCH, SOCKET MOUNTED, HERMETICALLY SEALED

INACTIVE FOR NEW DESIGN AFTER 30 SEPT 1987
 NO SUPERSEDING STANDARD

This specification is approved for use by all Departments
 and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist
 of this specification sheet and the issue of the following specification
 listed in that issue of the Department of Defense Index of Specifications
 and Standards (DODISS) specified in the solicitation: MIL-R-6106.

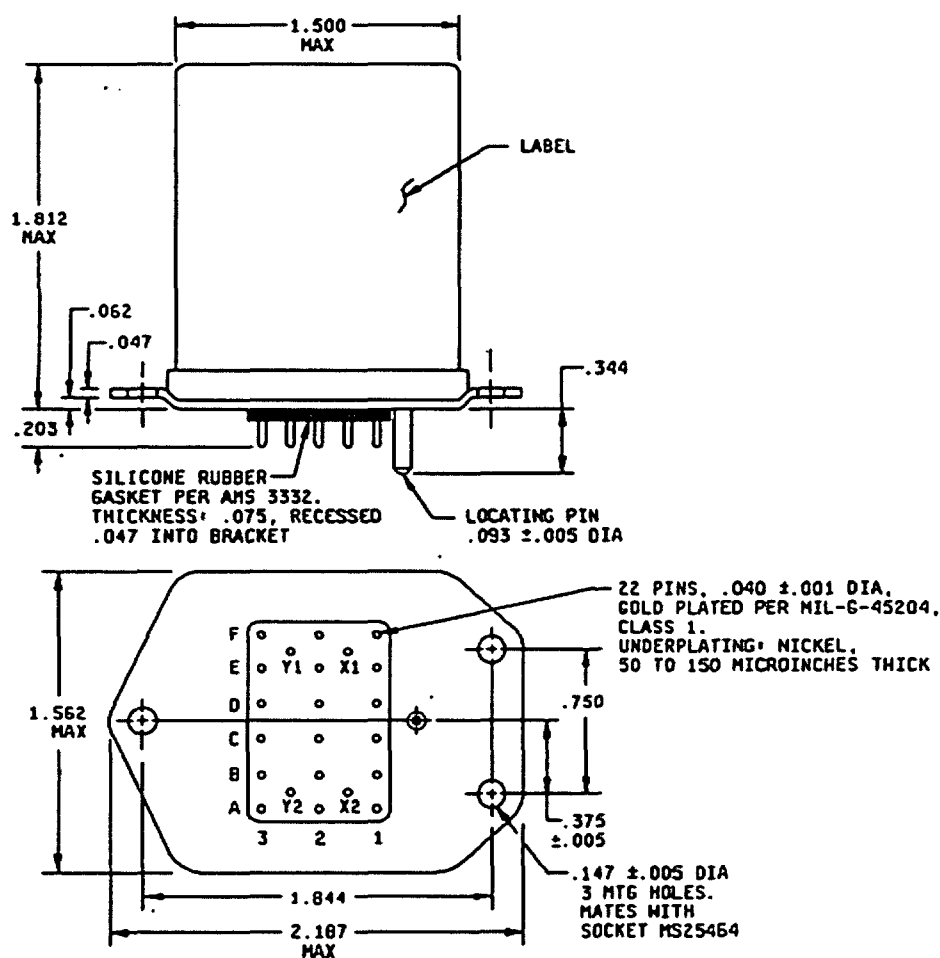
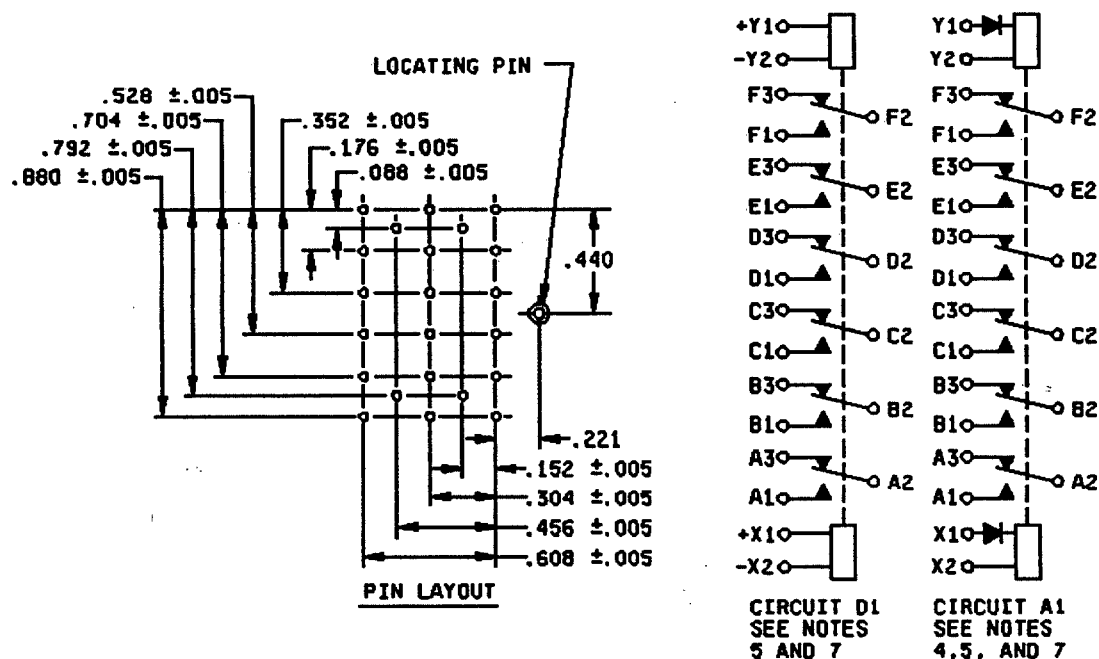


FIGURE 1. Dimensions, configuration, and circuit diagrams.

(H) denotes changes

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Inches	mm	Inches	mm	Inches	mm
.001	0.03	.152	3.86	.608	15.44
.005	0.13	.176	4.47	.704	17.88
.010	0.25	.203	5.16	.750	19.05
.040	1.02	.221	5.61	.792	20.12
.047	1.19	.304	7.72	.880	22.35
.062	1.57	.352	8.94	1.500	38.10
.075	1.91	.375	9.53	1.562	39.67
.088	2.24	.456	11.58	1.812	46.02
.093	2.36	.528	13.41	1.844	46.84
.147	3.73			2.187	55.55

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerance is ±.010 (0.25 mm).
4. The use of diodes on ac relays is optional. Actual application must be shown on label.
5. Terminal numbers need not appear on relay header. There shall be affixed to the relay a legible circuit diagram that identifies each terminal location.
6. Pins shall be perpendicular to header surface within one degree.
7. Relay is magnetically latched in both positions. Caution note to observe polarity must appear on relays with dc coils.
8. Shock, vibration, and acceleration requirements are applicable with coils de-energized.

FIGURE 1. Design, dimensions, and circuit diagram - Continued.

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REQUIREMENTS:

Dimensions, configuration, and circuit diagrams: See figure 1.

Part or Identifying Numbers (PINs) and general characteristics: See table I.

Contact data:

Load ratings: See table II.

Maximum contact drop:

Initial: 0.150 V.

After life test: 0.175 V.

Overload current: 20 amperes.

Rupture current: 25 amperes.

Coil data: See table III.

Duty rating: Continuous.

RFI specification: MIL-STD-461 (applicable to coil circuits of ac operated relays).

Electrical data:

Minimum insulation resistance:

Initial: 100 megohms.

After life or environmental test: 50 megohms.

(H) Dielectric strength (sea level):

	Initial	After life tests
Coil to case:	1,000 V rms	750 V rms
Aux. contacts:	N/A	N/A
All other points:	1,000 V rms	750 V rms

(H) Dielectric strength (80,000 feet, when mounted in mating socket):

Coil to case:	250 V rms	N/A
Aux. contacts:	N/A	N/A
All other points:	250 V rms	N/A

Environmental characteristics:

Temperature range: -70°C to +125°C.

Maximum altitude rating: 80,000 feet.

Shock g-level: 50 g's.

(H) Duration: 6 ms.

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(H) Maximum duration contact opening: 100 μ s.

Vibration, sinusoidal:

G-level: 10 g's.

Frequency range: 5 to 1,500 Hz.

Acceleration: 15 g's.

Quality conformance inspection: Performance of groups B and C tests is not applicable.

PIN: MS25463- (plus applicable dash number from table I).

TABLE I. PINs and general characteristics. 1/

PIN MS25463-	Type	Coil	Terminal type	Mounting means	Max weight (lbs)
D1	I	dc	Plug-in	Bracket	0.40
A1	I	ac	Plug-in	Bracket	0.42

1/ MS25463-AD1 is cancelled without replacement.

TABLE II. Rated contact load (amperes per pole) (case grounded). 3/

Type of load	Life operating cycles x 10 ³	28 V dc				115 V ac, 1 phase				115/200 V ac, 3 phase ^{1/}				See appropriate notes
		Main		Aux		Main		Aux		Main		Aux		
		NO	NC	NO	NC	400 Hz	60 Hz	400 Hz	60 Hz	400 Hz	60 Hz	400 Hz	60 Hz	
Resistive	100	5	5			5	4							
Inductive	100													
Inductive	20	3	3			3	2							
Motor	100	1.5	1.5			1.5	1							
Lamp	100	0.8	0.8			0.8	0.6							
Transfer load														2/
Mechanical life reduced current	400	1.25	1.25			1.25	1							
Intermediate current		Applicable in accordance with MIL-R-6106												

1/ Absence of value indicates that relay is not rated for three phase applications.

2/ Transfer load indicates relay is suitable for transfer between unsynchronized ac power supplies at the rating indicated.

3/ Absence of value indicates parameter is not applicable.

(H) TABLE III. Operating characteristics.

PIN	MS25463-	Coil data										Time (milliseconds maximum)							
		Coil	Rated			Max		Max pick-up			Operate 3/	Release 5/	Contact bounce						
			Volts 1/	Freq. Hz	Res Ω ±10% 6/	Volts A	Nor- mal 2/	High temp test	Cont cur- rent test	Main				Aux 6/					
D1		X1,X2 Y1,Y2	28	dc		29	0.17	18	19.8	22.5	25	N/A	2	2	NO	NC	NO	NC	
A1		X1,X2 Y1,Y2	115	400 5/		122	0.07	90	95	108	25	N/A	2	2	NO	NC	NO	NC	

1/ CAUTION: Use of any coil voltage less than rated coil voltage will compromise the operation of the relay.

2/ Over the temperature range.

3/ With rated coil voltage.

4/ From rated coil voltage.

5/ MS25463-A1 may be used on 60 Hz if maximum ambient temperature does not exceed to +85°C. Maximum current coil will be 0.077 amperes.

6/ Absence of values indicates parameter is not applicable.

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CONCLUDING MATERIAL

Custodians:

Navy - AS

Air Force - 85

Review activities:

Navy - EC

Preparing activity:

Air Force - 85

Agent:

DLA - ES

(Project 5945-0902-2)