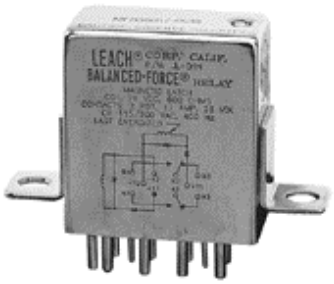
LEACH®

SERIES JL
RELAY – LATCH
2 PDT, 12 AMP



- **Magnetic latch operation**
- **All welded construction**
- **Contact arrangement** — **2 PDT**
- **Qualified at 10 Amps to** — **MIL-PRF-83536 /12 & /13**

Applicable sockets:
SO-1055-8690/10147

Application Notes:
101
102
103D
007
023

PRINCIPLE TECHNICAL CHARACTERISTICS

- **Contacts rated at** — 28 Vdc; 115 Vac, 400 Hz, 1Ø and 115/200 Vac, 400 Hz 3Ø
- **Weight** — 0.088 lb max
- **Dimensions** — 1.01in x .51in x 1.00in
- **Detail specification and ordering data appear on the following pages.**

CONTACT ELECTRICAL CHARACTERISTICS

Contact rating per pole and load type [1]	Load current in Amps			
	@28 Vdc	@115 Vac 400 Hz	@115/200 Vac, 400 Hz, 3Ø	@115/200 Vac, 60 Hz, 3Ø [6]
Resistive	12	12	12	2.5
Inductive [5]	8	8	8	2.5
Motor	4	4	4	2
Lamp	2	2	2	1
Overlod	40	60	60	N/A
Rupture	50	80	80	N/A

COIL CHARACTERISTICS (Vdc)

CODE	A	B	C	M	N [7]	R [7]	V [7]
Nominal operating voltage	28	12	6	48	28	12	6
Maximum operating voltage	29	14.5	7.3	50	29	14.5	7.3
Maximum pickup voltage							
- Cold coil at +125° C	18	9	4.5	36	18	9	4.5
- During high temp test at +125° C	19.8	9.9	5	38	19.8	9.9	5
- During continuous current test at +125° C	22.5	11.25	5.7	42	22.5	11.25	5.7
Coil resistance Ω ±10% +25° C or max coil current (Amps) at +25° C	600	150	38	1600	600	150	38

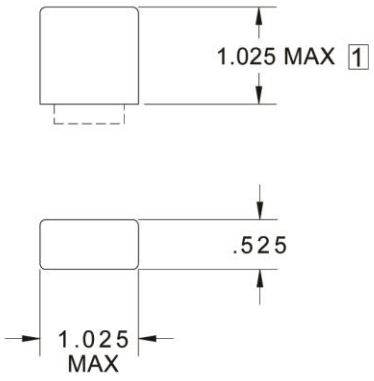
GENERAL CHARACTERISTICS

Temperature range	-70°C to +125°C
Minimum operating cycles (life) at rated load	100,000
Minimum operating cycles (life) at 25% rated load	400,000
Dielectric strength at sea level	
- All circuits to ground and circuit to circuit	1250 Vrms
- Coil to ground and coil to coil	1000 Vrms
Dielectric strength at altitude 80,000 ft	500 Vrms [2]
Insulation resistance	
- Initial (500 Vdc)	100 M Ω min
- After environmental tests (500 Vdc)	50 M Ω min
Sinusoidal vibration (A, D, and J mounting)	0.12 d.a. / 10 to 70 Hz 30G / 70 to 3000 Hz
Sinusoidal vibration (G mounting)	0.12 d.a. / 10 to 57 Hz 20G /57 to 3000 Hz
Random vibration	
- Applicable specification	MIL-STD-202
- Method	214
- Test condition – A, D and J mounting	1G ($0.4G^2$/Hz, 50 to 2000 Hz)
- Test condition – G mounting	1E ($0.2G^2$/Hz, 50 to 2000 Hz)
- Duration	15 minutes each plane
Shock (A, D and J mounting)	200G / 6 ms
Shock (G mounting)	100G / 6 ms
Maximum contact opening time under vibration and shock@25°C	10 µs
Operate time at nominal voltage (either coil) @25°C	10 ms max
Contact make bounce at nominal voltage @25°C	1 ms max

Unless otherwise noted, the specified temperature range applies to all relay characteristics.

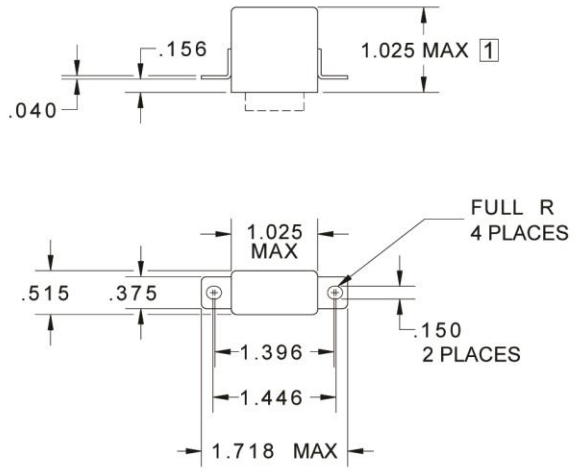
Dimensions in inches
Tolerances, unless otherwise specified, ± 0.03 in

MOUNTING STYLES



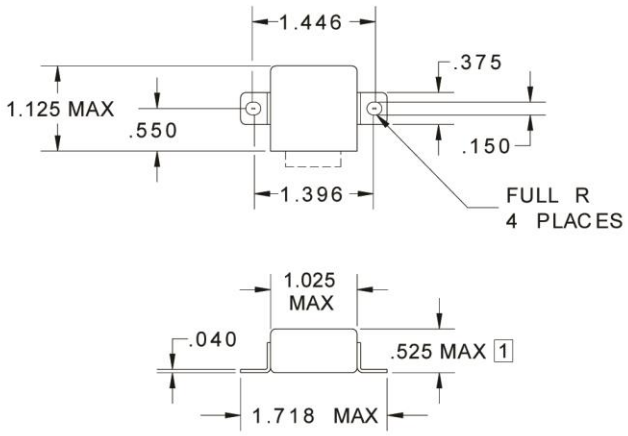
MOUNTING STYLE A

1 DIMENSION IS 1.125 ON SUPPRESSED UNITS



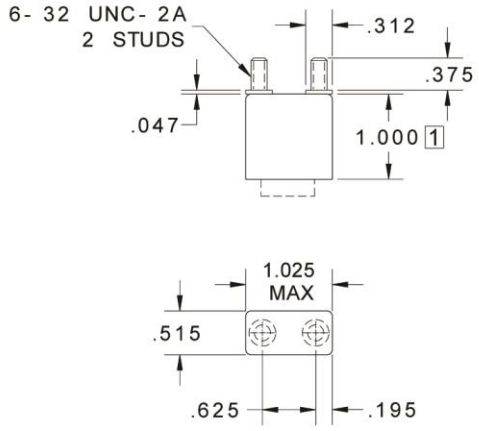
MOUNTING STYLE D

1 DIMENSION IS 1.125 ON SUPPRESSED UNITS



MOUNTING STYLE J

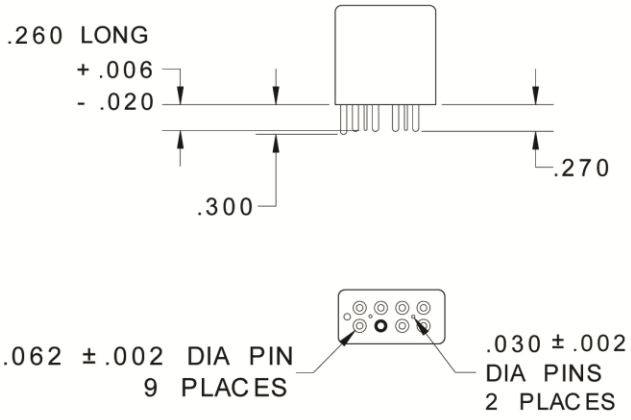
1 DIMENSION IS .550 ON SUPPRESSED UNITS



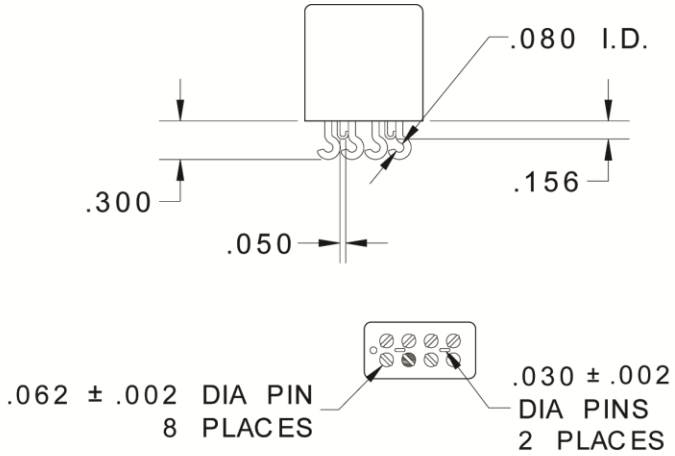
MOUNTING STYLE G

1 DIMENSION IS 1.125 ON SUPPRESSED UNITS

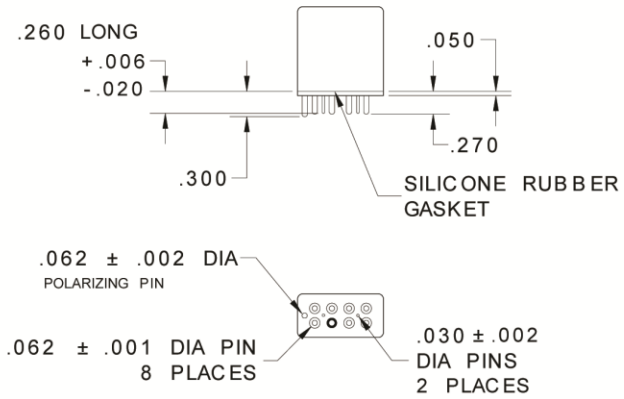
TERMINAL TYPES



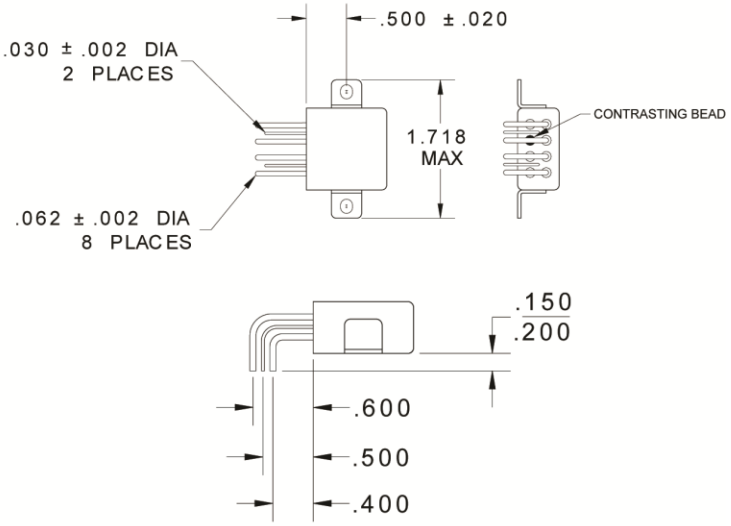
TERMINAL TYPE 1
FINISH: TIN/LEAD PLATED



TERMINAL TYPE 2
FINISH: TIN/LEAD PLATED



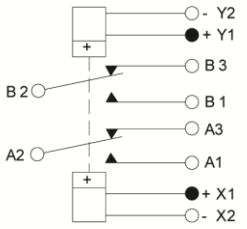
TERMINAL TYPE 4
FINISH CASE: TIN/LEAD PLATED
TERMINALS: GOLD PLATED
POLARIZING PIN: TIN/LEAD



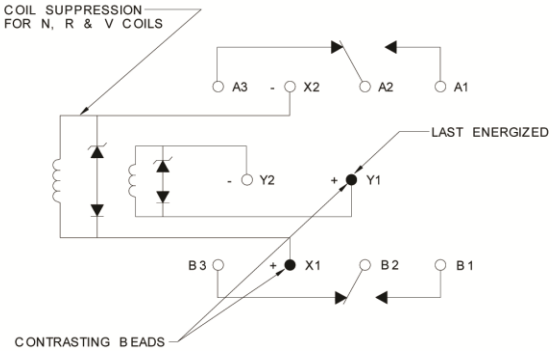
TERMINAL TYPE 7
FINISH: CASE- TIN/LEAD PLATED
TERMINALS- TIN/LEAD

DIAGRAMS

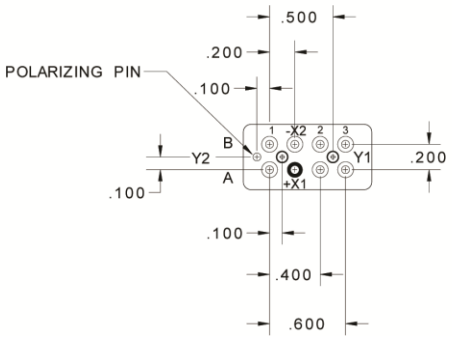
SCHEMATIC DIAGRAM



WIRING DIAGRAM



STANDARD TERMINAL LAYOUT



TOL: .XX ±.03; .XXX ±.010

NUMBERING SYSTEM

JL - A 1 A

Basic series designation

1. **Mounting styles** (A, D, G, J)
2. **Terminal types** (1, 2, 4, 7)
3. **Coil voltage, see coil characteristics** (A, B, C, M, N, R or V)

NOTES

1. **Standard Intermediate current test applicable.**
2. **500 Vrms with silicone gasket compressed, 350 Vrms all other conditions, except between "Y" coil pins and ground to be 250 Vrms 60 Hz.**
3. **Applicable military specification: MIL-PRF-83536.**
4. **Special models available: i.e. dry circuit capabilities, high reliability testing, etc. Please contact factory.**
5. **Inductive load life, 20,000 cycles.**
6. **60 Hz load life, 10,000 cycles.**
7. **"N" R & V coils have back EMF suppression to - 5 volts maximum.**
8. **Relay will not be damaged by applying reverse voltage to the coil, although the relay may transfer.**
9. **Time current relay characteristics per MIL-PRF-83536.**

For any inquiries, please contact your local sales representative: leachcorp.com