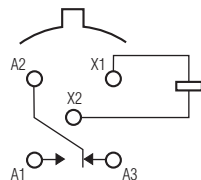


**Single Pole, Electrically Held, 1 Amp and Less** (Continued)

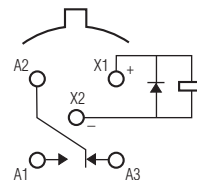
**1MS, 1MSD, 1MSDD**

**1MS**  
**Sensitive TO-5**  
**High Performance Relay**  
**Qualified to**  
**MIL-R-39016/10**



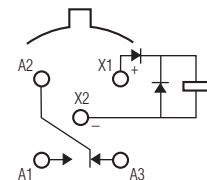
Terminal View

**1MSD**  
**Sensitive TO-5**  
**Diode Suppressed**  
**High Performance Relay**  
**Qualified to**  
**MIL-R-39016/25**



Terminal View

**1MSDD**  
**Sensitive TO-5 Diode**  
**Suppressed/Protected**  
**High Performance Relay**  
**Qualified to**  
**MIL-R-39016/26**



Terminal View

**Product Facts**

- Hermetically sealed
- High shock & vibration ratings
- Spreader pad
- Excellent RF switching

**Product Facts**

- Suppression diode
- Hermetically sealed
- High shock & vibration ratings
- Spreader pad
- Excellent RF switching

**Product Facts**

- Suppression & protection diodes
- Hermetically sealed
- High shock & vibration ratings
- Spreader pad
- Excellent RF switching

**Electrical Characteristics**

**Contact Arrangement** — 1 Form C (SPDT)

**Contact Material** — Stationary — Gold/platinum/palladium/silver alloy (gold plated)  
 Moveable — Gold/platinum/palladium/silver alloy (gold plated)

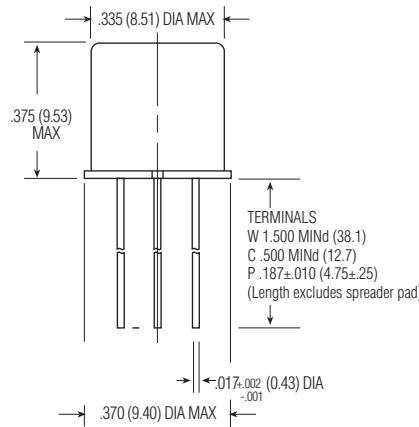
**Contact Resistance** — Before Life — 100 milliohms max. (measured @ 10 mA @ 6 Vdc)  
 After Life — 200 milliohms max. (measured @ 1 A @ 28 Vdc)

**Mechanical Life Expectancy** — 1 million operations

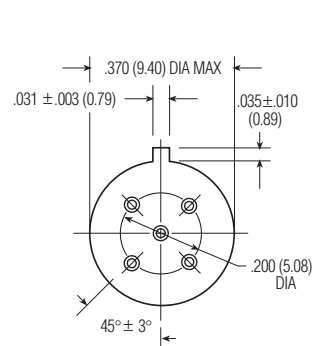
**Coil Voltage** — 5 to 40 Vdc  
**Coil Power** — 506 mW max. @ 25°C  
**Duty Cycle** — Continuous  
**Pick-up Voltage** — Approximately 50% of nominal coil voltage  
**Pick-up Sensitivity** — 40 mW max. @ 25°C

**Contact Ratings**

| Contact Load                     | Type                          | Operations MINd. |
|----------------------------------|-------------------------------|------------------|
| 1.0 A @ 28 Vdc                   | Resistive                     | 100,000          |
| 250 mA @ 115 Vac, 60 Hz & 400 Hz | Resistive (case not grounded) | 100,000          |
| 100 mA @ 115 Vac, 60 Hz & 400 Hz | Resistive                     | 100,000          |
| 0.2 A @ 28 Vdc                   | Inductive (0.32 Henry)        | 100,000          |
| 0.1 A @ 28 Vdc                   | Lamp                          | 100,000          |
| 30 µA @ 50 mVdc                  | Low Level                     | 1,000,000        |
| 0.1 A @ 28 Vdc                   | Intermediate Current          | 50,000           |



1MS/1MSD/1MSDD Enclosure



1MS/1MSD/1MSDD Header

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

**1MS, 1MSD, 1MSDD**  
(Continued)

**Operating Characteristics**

**Timing** —  
Operate Time — 4.0 ms max.  
Release Time —  
1MS — 2.5 ms max.  
1MSD/1MSDD — 7.5 ms max.  
(suppression diode, suppression/  
steering diodes)

**Contact Bounce** — 1.5 ms max

**Dielectric Withstanding Voltage** —

Between Open Contacts —  
500 Vrms 60 Hz  
Between Adjacent Contacts —  
500 Vrms 60 Hz  
Between Contacts & Coil —  
500 Vrms 60 Hz

**Insulation Resistance** —

10,000 megohms @ 500 Vdc  
1,000 megohms @ 500 Vdc  
(coil to case @ +125°C)

**Environmental Characteristics**

**Temperature Range** —  
-65°C to +125°C

**Weight** —  
0.10 oz. (2.84 grms)  
0.11 oz. (3.09 grms) with spreader pad  
attached

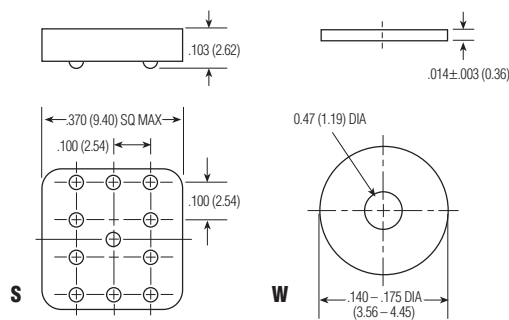
**Vibration Resistance** —  
30 G's, 10 to 3,000 Hz

**Shock Resistance** —  
75 G's, 6 ±1 ms max.

**QPL Approval** —  
MIL-R-39016/10 (J1MS)  
MIL-R-39016/25 (J1MSD)  
MIL-R-39016/26 (J1MSDD)

**Semiconductor Characteristics**

**Diode** —  
100 Vdc peak inverse voltage (PIV)  
1.0 Vdc max. transient voltage



Spreader & Mounting Pads

**Coil Data**

| Nom. Coil Voltage (Vdc) | Coil Resistance in Ohms ±10% @ 25°C (Note 1) | Coil Circuit Current mA (Max.) (Note 1&2) | Coil Circuit Current mA (MIND.) (Note 1&2) | Pickup Voltage Vdc (Max.) @ 25°C (Note 2) | Base Turn On Current mA (Max.) @ 25°C | Pickup Voltage Vdc (Max.) @ 125°C (Note 2) | Base Turn On Current mA (Max.) @ 125°C | Drop-Out Voltage Vdc (MIND.) @ 25°C (Note 2) | Drop-Out Voltage Vdc (MIND.) @ -65°C (Note 2) | Nom. Coil Power (mW) @ 25°C | Max. Coil Voltage | Coil Desig. |
|-------------------------|--|---|--|---|---------------------------------------|--|--|--|---|-----------------------------|-------------------|-------------|
| <b>1MS/1MSD</b>         |  |   |  |   |                                       |  |  |  |   |                             |                   |             |
| 5.0                     | 125  | n/a                                       | n/a  | 2.8                                       | n/a                                   | 3.7  | n/a                                    | 0.23   | 0.15  | 200                         | 8.0               | 5           |
| 6.0                     | 255  | n/a                                       | n/a  | 3.5                                       | n/a                                   | 4.5  | n/a                                    | 0.28   | 0.18  | 141                         | 11.0              | 6           |
| 9.0                     | 630  | n/a                                       | n/a  | 5.3                                       | n/a                                   | 6.8  | n/a                                    | 0.54   | 0.35  | 129                         | 12.0              | 9           |
| 12.0                    | 1,025  | n/a                                       | n/a  | 7.0                                       | n/a                                   | 9.0  | n/a                                    | 0.63   | 0.40  | 140                         | 22.0              | 12          |
| 18.0                    | 2,300  | n/a                                       | n/a  | 10.5                                      | n/a                                   | 13.5                                       | n/a                                    | 0.91   | 0.59  | 141                         | 24.0              | 18          |
| 26.5                    | 4,000  | n/a                                       | n/a  | 14.2                                      | n/a                                   | 18.0                                       | n/a                                    | 1.37   | 0.89  | 176                         | 45.0              | 26          |
| 32.0                    | 6,500  | n/a                                       | n/a  | 18.7                                      | n/a                                   | 24.0                                       | n/a                                    | 1.59   | 1.0   | 158                         | 57.0              | 32          |
| 40.0                    | 11,000                                       | n/a                                       | n/a  | 23.3                                      | n/a                                   | 30.0                                       | n/a                                    | 2.0  | 1.3   | 145                         | 75.0              | 40          |
| <b>1MSDD</b>            |  |   |  |   |                                       |  |  |  |   |                             |                   |             |
| 5.0                     | 100  | 50.0                                      | 36.3                                       | 3.5                                       | n/a                                   | 4.5  | n/a                                    | 0.23   | 0.15  | 250                         | 8.0               | 5           |
| 6.0                     | 200  | 30.6                                      | 22.7                                       | 4.1                                       | n/a                                   | 5.5  | n/a                                    | 0.28   | 0.18  | 180                         | 11.0              | 6           |
| 9.0                     | 630  | 15.0                                      | 11.5                                       | 6.3                                       | n/a                                   | 7.8  | n/a                                    | 0.54   | 0.35  | 129                         | 16.0              | 9           |
| 12.0                    | 1,025  | 12.5                                      | 9.7  | 8.0                                       | n/a                                   | 10.0                                       | n/a                                    | 0.63   | 0.40  | 140                         | 22.0              | 12          |
| 18.0                    | 2,300  | 8.5                                       | 6.7  | 11.6                                      | n/a                                   | 14.5                                       | n/a                                    | 0.91   | 0.58  | 141                         | 33.0              | 18          |
| 26.5                    | 4,000  | 7.2                                       | 5.7  | 15.4                                      | n/a                                   | 19.0                                       | n/a                                    | 1.37   | 0.89  | 176                         | 45.0              | 26          |
| 32.0                    | 6,500  | 5.4                                       | 4.3  | 17.0                                      | n/a                                   | 21.0                                       | n/a                                    | 1.5  | 0.95  | 158                         | 57.0              | 32          |
| 40.0                    | 11,000                                       | 4.0                                       | 3.2  | 22.0                                      | n/a                                   | 27.0                                       | n/a                                    | 2.0  | 1.28  | 145                         | 75.0              | 40          |

**Notes:** 1. Coil resistance not directly measurable. Coil current should be within limits shown when tested at nominal voltage at 25°C for 5 seconds max.  
2. Set base current at 3 mA to 15 mA during measurements.

**Ordering Instructions**

Catalog-selected Relays: The catalog number is derived by choosing the proper CODE for each of the relay characteristics in the order in which the codes are listed.

| Specifying a Part Number Example: | Type | Terminal | Diodes | Coils | Spreader/Mounting Pads |
|-----------------------------------|------|----------|--------|-------|------------------------|
|                                   | 1MS  | C        | D      | -26   | S                      |

\* The part number example shown on this page is for catalog items. For a list of specific QPL part numbers, please see the index in Section 15.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

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