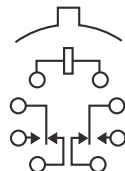## Double Pole, Electrically Held, 1 Amp and Less (Continued)

HM, HMD, HS, HSD

HM, HS
Standard / Sensitive TO-5 Commercial Relay

Terminal View

HMD, HSD
Standard / Sensitive TO-5 Diode Suppressed Commercial Relay

Terminal View

Product Facts
- **Hermetically sealed**
- **Spreader Pads**
- **Excellent RF switching**

Product Facts
- **Suppression Diode**
- **Hermetically sealed**
- **Spreader Pads**
- **Excellent RF switching**

Electrical Characteristics
Contact Arrangement —
2 Form C (DPDT)

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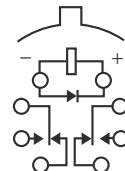(gold plated)
Moveable —
Gold/platinum/palladium/silver alloy
(gold plated)

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 —
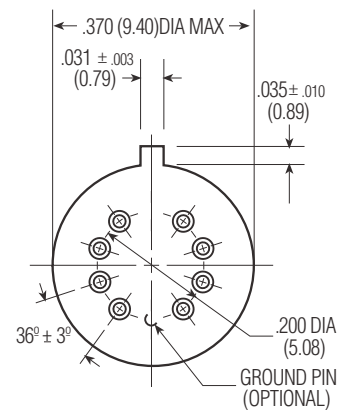1 million operations

Electrical Characteristics
Coil Voltage —
5 to 30 Vdc (HM/HMD)
5 to 48 Vdc (HS/HSD)

Coil Power —
HM/HMD — 675 mW max. @ 25°C
HS/HSD — 565 mW max. @ 25°C

Duty Cycle — Continuous

Pick-up Voltage — Approximately
70% of nominal coil voltage

Pick-up Sensitivity —
HM/HMD — 180 mW max. @ 25°C
HS/HSD — 90 mW max. @ 25°C

.370 (9.40)DIA MAX

.031 ± .003
(0.79)

.035± .010
(0.89)

.200 DIA
(5.08)

GROUND PIN
(OPTIONAL)

36⁰ ± 3⁰

Header

Contact Ratings

Contact Load	Type	Operations Min.
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

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

HM, HMD, HS, HSD
(Continued)

Operating Characteristics

Timing —
Operate Time —
HM/HMD — 4.0 ms max.
HS/HSD — 6.0 ms max.
Release Time —
HM — 3.0 ms max.
HS — 3.0 ms max.
HMD — 6.0 ms max.
(suppression diode)
HSD — 7.5 ms max.
(suppression diode)

Dielectric Withstanding Voltage —
Between Open Contacts —
350 Vrms 60 Hz
Between Adjacent Contacts —
350 Vrms 60 Hz
Between Contacts & Coil —
350 Vrms 60 Hz

Insulation Resistance —
1,000 megohms @ 500 Vdc

Environmental Characteristics

Temperature Range —
-55°C to +85°C

Weight —
HM/HMD —
0.09 oz. (2.55 gms)
0.099 oz. (2.80 gms) w/ spreader pad
HS/HSD —
0.12 oz. (3.40 gms)
0.129 oz. (3.45 gms) w/ spreader pad

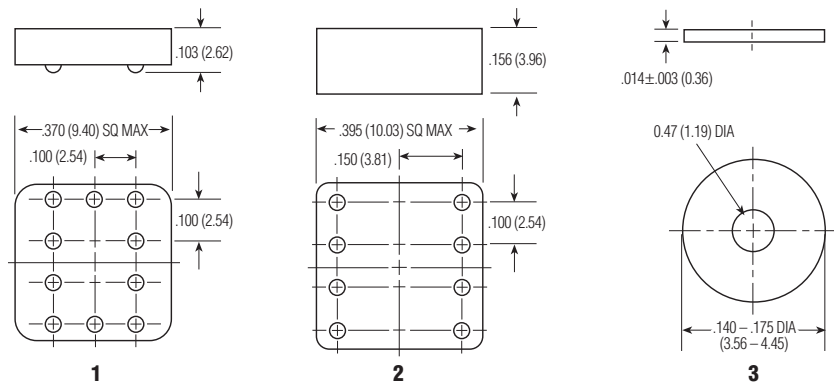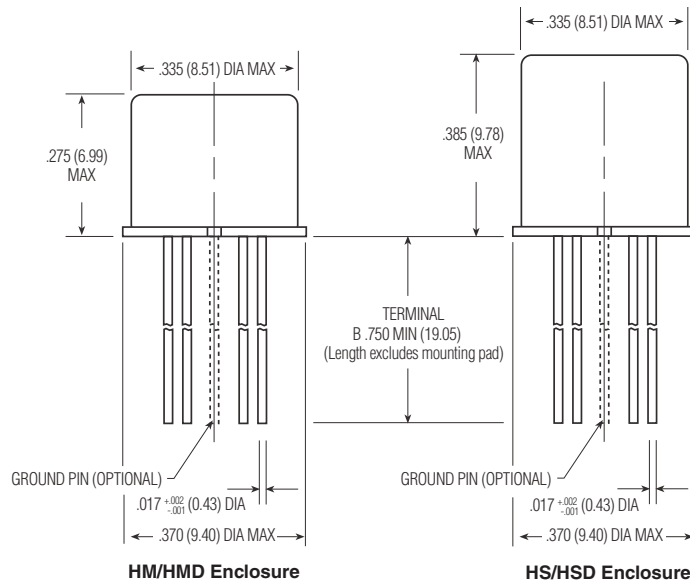**Vibration Resistance** —
10 G's, 10 to 500 Hz

Shock Resistance —
30 G's, 6 ±1 ms

Semiconductor Characteristics

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

Standard Coil Data

	Nom. Coil Voltage (Vdc)	Coil Resistance in Ohms ±20% @ 25°C	Pickup Voltage Vdc (max.) @ 25°C	Nom. Coil Power (mW) @ 25°C	Max. Coil Voltage	Coil Desig.
HM/HMD	5.0	50	3.6	500	5.8	5
	6.0	98	4.2	367	8.0	6
	9.0	220	6.5	368	12.0	9
	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
	30.0	2,500	22.0	360	36.0	30
HS/HSD	5.0	100	3.5	250	7.5	5
	6.0	200	4.5	180	10.0	6
	9.0	400	6.8	203	15.0	9
	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
	36.0	6,500	24.0	199	57.0	36
	48.0	11,000	32.0	209	75.0	48

HM/HMD Enclosure — .335 (8.51) DIA MAX, .275 (6.99) MAX, GROUND PIN (OPTIONAL), .017 +.002/-.001 (0.43) DIA, .370 (9.40) DIA MAX

HS/HSD Enclosure — .335 (8.51) DIA MAX, .385 (9.78) MAX, GROUND PIN (OPTIONAL), .017 +.002/-.001 (0.43) DIA, .370 (9.40) DIA MAX

TERMINAL B .750 MIN (19.05) (Length excludes mounting pad)

1 — .103 (2.62), .370 (9.40) SQ MAX, .100 (2.54), .100 (2.54)

2 — .156 (3.96), .395 (10.03) SQ MAX, .150 (3.81), .100 (2.54)

3 — .014±.003 (0.36), 0.47 (1.19) DIA, .140 – .175 DIA (3.56 – 4.45)

Spreader and Mounting Pads

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**	**Diodes**	**Ground Pin**	**Spreader/Mounting Pads**	**Coils**	**Terminals**
	HM	D	X	3	-26	B

1-15

Catalog 5-1773450-5
Revised 3-13

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Dimensions are shown for reference purposes only. Specifications subject to change.

Dimensions are in millimeters unless otherwise specified.

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UK: +44 800 267 666

For additional support numbers please visit www.te.com