

Product Facts

- Suppression & protection diodes
- Hermetically sealed
- High shock & vibration ratings
- Mounting pads
- Excellent RF switching

Electrical Characteristics

Contact Arrangement — 2 Form C (DPDT)

Contact Material -Stationary Gold/platinum/palladium/silver

(gold plated) Moveable -Gold/platinum/palladium/silver (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 48 Vdc **Coil Power** — 565 mW max. @ 25°C

Duty Cycle — Continuous Pick-up Voltage — Approximately

50% of nominal coil voltage Pick-up Sensitivity -60 mW max. @ 25°C

Contact Ratings

_

Hermetically sealed

ratings

Mounting pads

High shock & vibration

Excellent RF switching

Contact Load	Туре	Operations Min. 100,000	
1.0 A @ 28 Vdc	Resistive		
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	

Suppression diode

Hermetically sealed

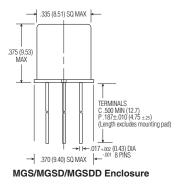
ratings

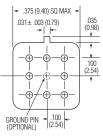
Mounting pads

High shock & vibration

Excellent RF switching







MGS/MGSD/MGSDD Header

1-18

Catalog 5-1773450-5 Revised 3-13

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

Dimensions are in millimeters unless otherwise specified.

USA: +1 800 522 6752 Asia Pacific: +86 0 400 820 6015 UK: +44 800 267 666 For additional support numbers please visit www.te.com



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

MGS, MGSD, MGSDD

(Continued)

Operating Characteristics

Timing -Operate Time — 4.0 ms max. Release Time -MGS - 2.0 ms max. MGSD/MGSDD - 7.5 ms max. (suppression diode, protection/ suppression 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 min. @ 500 Vdc 1,000 megohms @ 500 Vdc (coil to case @ +125°C)

Environmental Characteristics

Temperature Range — -65°C to +125°C Weight -0.09 oz. (2.55 gms) 0.129 oz. (3.45 gms) w/ mounting 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-39016/41 (JMGS) MIL-R-39016/42 (JMGSD) MIL-R-39016/43 (JMGSDD)

0.47 (1.19) DIA



.140-.175 DIA (3.56-4.45)

MGS/MGSD/MGSDD

Mounting Pad

Semiconductor Characteristics Diode –

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

Coil Data

Nom. Coil Voltage (Vdc)	Coil Resistance in Ohms ±10% @ 25°C (Note)	Coil Circuit Current mA (Max.) (Note)	Coil Circuit Current mA (Min.) (Note)	Pickup Voltage Vdc (Max.) @ 25°C	Pickup Voltage Vdc (Max.) @ 125°C	Drop-Out Voltage Vdc (Min.) @ 25°C	Drop-Out Voltage Vdc (Min.) @ -65°C	Nom. Coil Power (mW) @ 25°C	Max. Coil Voltage	Coil Desig.
MGS/MGSD										
5.0	100	n/a	n/a	2.6	3.5	0.23	0.12	250	7.5	5
6.0	200	n/a	n/a	3.4	4.5	0.28	0.18	180	10.0	6
9.0	400	n/a	n/a	4.85	6.8	0.55	0.35	203	15.0	9
12.0	800	n/a	n/a	7.0	9.0	0.64	0.41	180	20.0	12
18.0	1,600	n/a	n/a	9.8	13.5	0.92	0.59	203	30.0	18
26.5	3,200	n/a	n/a	14.0	18.0	1.4	0.89	219	40.0	26
36.0	6,500	n/a	n/a	20.0	27.0	1.8	1.25	199	57.0	36
48.0	11,000	n/a	n/a	25.8	36.0	2.4	1.60	209	75.0	48
MGSDD										
5.0	64	78.1	56.8	2.9	3.7	0.8	0.7	391	7.5	5
6.0	125	48.9	36.3	4.0	4.8	0.9	0.8	288	10.0	6
9.0	400	23.6	18.1	6.1	8.0	1.1	0.9	203	15.0	9
12.0	800	16.0	12.5	7.8	11.0	1.3	1.0	180	20.0	12
18.0	1,600	12.2	9.6	11.3	14.5	1.5	1.1	203	30.0	18
26.5	3,200	9.0	7.2	15.2	19.0	1.7	1.3	219	40.0	26
36.0	6,500	6.1	4.9	21.7	27.2	2.3	1.7	199	57.0	36
48.0	11,000	4.8	3.9	27.8	34.8	2.8	2.0	209	75.0	48

W

Note: Coil resistance not directly measurable. Coil current should be within limits shown when tested at nominal voltage at 25°C for 5 seconds max.

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	<u>Terminals</u>	Diodes	Ground Pins	<u>Coils</u>	Mounting Pads		
	MGS	С	D	G	-26	W		
* 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.								

Catalog 5-1773450-5 Revised 3-13

Dimensions are in millimeters unless otherwise specified.

USA: +1 800 522 6752 Asia Pacific: +86 0 400 820 6015 UK: +44 800 267 666

For additional support numbers please visit www.te.com

www.te.com

1-19