

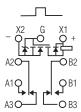
Double Pole, Electrically Held, 1 Amp and Less (Continued)

MGST

MGST

Sensitive .100 Grid Diode Suppressed/MOSFET Driven High Performance Relay

Qualified to MIL-R-28776/7



Terminal View

Product Facts

- MOSFET driver, zener & suppression diodes
- Hermetically sealed
- High shock & vibration ratings
- **■** Mounting pads
- **■** Excellent RF switching

Electrical Characteristics

 ${\bf Contact\ Arrangement}\ --$

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 26.5 Vdc

Coil Power — 565 mW max. @ 25°C

Duty Cycle — Continuous

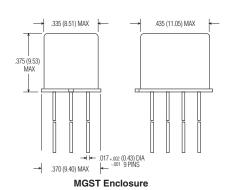
Pick-up Voltage — Approximately 50% of nominal coil voltage

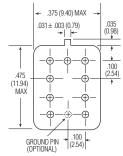
Pick-up Sensitivity - 60 mW max. @ 25°C

Contact Ratings

| Contact Load | Туре | 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 |
| 0.1 A @ 28 Vdc | Intermediate Current | 50,000 |







MGST Header

to change.

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

MGST (Continued)

Operating Characteristics

Timing -

Operate Time — 4.0 ms max. Release Time — 7.5 ms max. 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

Vibration Resistance —

30 G's, 10 to 3,000 Hz

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

QPL Approval -

MIL-R-28776/7 (JMGST)

Semiconductor Characteristics

Diode -

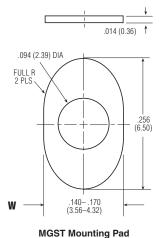
100 Vdc peak inverse voltage (PIV) 1.0 Vdc max. transient voltage

Zener Diode -

20 Vdc ±3 Vdc over temperature range

MOSFET -

0.5 Vdc min. gate turn off voltage 4.3 Vdc max. gate turn on voltage



Coil Data

| oon bata | | | | | | | | | | |
|----------------------------------|--------------------------------------------------------|------------------------------------------------|------------------------------------------------|-------------------------------------------|--------------------------------------------|---------------------------------------------|----------------------------------------------|--------------------------------------|-------------------------|----------------|
| 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. |
| MGST | | | | | | | | | | |
| 5.0 | 100 | 56.0 | 43.0 | 2.9 | 4.0 | 0.23 | 0.13 | 250 | 5.6 | 5 |
| 6.0 | 200 | 33.0 | 27.0 | 3.5 | 4.9 | 0.32 | 0.18 | 180 | 8.0 | 6 |
| 9.0 | 400 | 26.4 | 17.8 | 5.3 | 7.3 | 0.48 | 0.27 | 203 | 12.0 | 9 |
| 12.0 | 800 | 17.7 | 11.3 | 7.1 | 9.8 | 0.65 | 0.36 | 180 | 16.0 | 12 |
| 18.0 | 1,600 | 13.8 | 8.4 | 10.6 | 14.6 | 0.97 | 0.54 | 203 | 24.0 | 18 |
| 26.5 | 3,200 | 10.2 | 5.8 | 14.2 | 19.5 | 1.30 | 0.72 | 219 | 32.0 | 26 |

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> | <u>Diodes</u> | Ground Pins | <u>Coils</u> | Mounting Pads |
|-----------------------------------|------|------------------|---------------|--------------------|--------------|----------------------|
| | MGS | С | Т | 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.

For additional support numbers