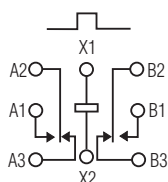


Double Pole, Electrically Held, 1 Amp and Less (Continued)

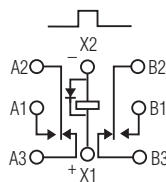
SMGS, SMGSD, SMGSDD

SMGS
Sensitive .100 Grid
Surface Mount
High Performance Relay
Designed to
MIL-R-39016/41



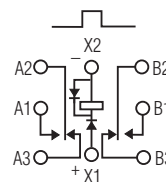
Terminal View

SMGSD
Sensitive .100 Grid Diode
Suppressed Surface Mount
High Performance Relay
Designed to
MIL-R-39016/42



Terminal View

SMGSDD
Sensitive .100 Grid Diode
Suppressed/Protected
Surface Mount
High Performance Relay
Designed to
MIL-R-39016/43



Terminal View

Product Facts

- Hermetically sealed
- High shock & vibration ratings
- Surface mount leads
- Excellent RF switching

Product Facts

- Suppression diode
- Hermetically sealed
- High shock & vibration ratings
- Surface mount leads
- Excellent RF switching

Product Facts

- Suppression & protection diodes
- Hermetically sealed
- High shock & vibration ratings
- Surface mount leads
- 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

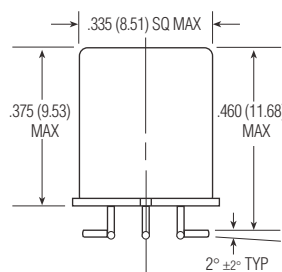
Duty Cycle — Continuous

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

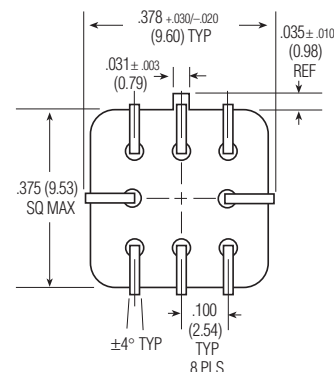
Pick-up Sensitivity —
130 mW max. @ 25°C

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
0.1 A @ 28 Vdc	Intermediate Current	50,000



Enclosure



Header

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

SMGS, SMGSD, SMGSDD

(Continued)

Operating Characteristics

Timing —

Operate Time — 4.0 ms max.

Release Time —

SMGS — 2.0 ms max.

SMGSD/SMGSDD — 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)

Vibration Resistance —

30 G's, 10 to 3,000 Hz

Shock Resistance —

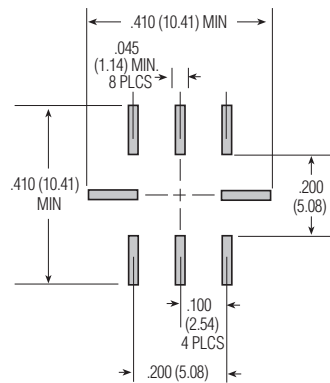
75 G's, 6 ±1 ms max.

Semiconductor Characteristics

Diode —

100 Vdc peak inverse voltage (PIV)

1.0 Vdc max. transient voltage



Recommended Solder Pad Layout

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.
SMGS/SMGSD										
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
SMGSDD										
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

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	Diode	Coils
SMGS	D	-26

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[TE Connectivity:](#)

[SMGSD-18](#)