

Electromechanical Relays

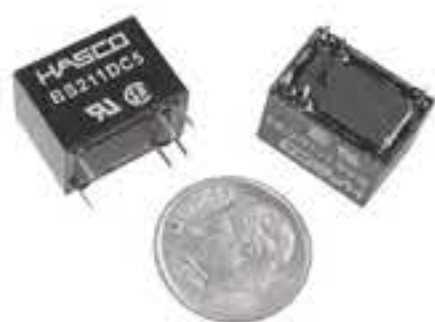
Hasco Component's electromechanical relays range from less than an amp to 80 amps. Hasco's relays are UL and CSA with some TUV ratings. All relays have DC coils and many have an AC coil. They come sealed for wave soldering and washing thereby allowing the relays to be put on any assemble line. There are surface mount low current relays available as well.

SPDT—BAS/BS./SC SINGLE BUTTON CONTACT 2.0 AMP, 5.0 AMP

FEATURES

- FCC Pt 68
- Small Package
- Fully sealed

File E75887  
File LR49291



COIL RATINGS FOR STANDARD MODEL

| Relay Codes |            |           | Contact Arrangement | Nom. Volt. (V) | Coil Resist. (Ohms +/-10%) | Nom. Curr. (mA) | Pick-Up Volt. (V) | Drop-Out Volt. (V) | Max. Volt. (V) | Nom. Pwr (W) Cons'p-tion |
|-------------|------------|-----------|---------------------|----------------|----------------------------|-----------------|-------------------|--------------------|----------------|--------------------------|
| 2 Amp       | 5 Amp      | 2 Amp     |                     |                |                            |                 |                   |                    |                |                          |
| BAS-111-3   | BAS-511-3  | SC-111-3  | SPDT (1 Form C)     | 3              | 20                         | 150             | 2.1               | 0.3                | 3.3            | Approx. 0.45             |
| BAS-111-5   | BAS-511-5  | SC-111-5  |                     | 5              | 56                         | 89.3            | 3.5               | 0.5                | 5.5            |                          |
| BAS-111-6   | BAS-511-6  | SC-111-6  |                     | 6              | 80                         | 75              | 4.2               | 0.6                | 6.6            |                          |
| BAS-111-9   | BAS-511-9  | SC-111-9  |                     | 9              | 180                        | 50              | 6.3               | 0.9                | 9.9            |                          |
| BAS-111-12  | BAS-511-12 | SC-111-12 |                     | 12             | 320                        | 37.5            | 8.4               | 1.2                | 13.2           |                          |
| BAS-111-24  | BAS-511-24 | SC-111-24 |                     | 24             | 1280                       | 18.8            | 16.8              | 2.4                | 26.4           |                          |
| BAS-111-48  | BAS-511-48 | SC-111-48 |                     | 48             | 5120                       | 9.4             | 33.6              | 4.8                | 52.8           |                          |

COIL RATINGS FOR SENSITIVE MODEL

| Relay Codes |           | Contact Arrangement | Nom. Volt. (V) | Coil Resist. (Ohms +/-10%) | Nom. Curr. (mA) | Pick-Up Volt. (V) | Drop-Out Volt. (V) | Nom. Max. Volt. (V) | Pwr (W) Cons'p-tion |
|-------------|-----------|---------------------|----------------|----------------------------|-----------------|-------------------|--------------------|---------------------|---------------------|
| 2 Amp       | 2 Amp     |                     |                |                            |                 |                   |                    |                     |                     |
| BS-211-3    | SC-211-3  | SPDT (1 Form C)     | 3              | 45                         | 66.7            | 2.1               | 0.3                | 4.8                 | Approx. 0.20        |
| BS-211-5    | SC-211-5  |                     | 5              | 120                        | 41.7            | 3.5               | 0.5                | 8.0                 |                     |
| BS-211-6    | SC-211-6  |                     | 6              | 180                        | 33.3            | 4.2               | 0.6                | 9.6                 |                     |
| BS-211-9    | SC-211-9  |                     | 9              | 400                        | 22.5            | 6.3               | 0.9                | 14.4                |                     |
| BS-21112    | SC-211-12 |                     | 12             | 700                        | 17.1            | 8.4               | 1.2                | 19.2                |                     |
| BS-21124    | SC-211-24 |                     | 24             | 2800                       | 8.6             | 16.8              | 2.4                | 38.4                |                     |

RATING PERFORMANCE

| Specifications        |                           |                                                                            | Note                             |
|-----------------------|---------------------------|----------------------------------------------------------------------------|----------------------------------|
| Coil                  | Nominal Voltage           | 3, 5, 6, 9, 12, 24, 48 VDC                                                 |                                  |
|                       | Nominal Power Consumption | 0.45W                                                                      |                                  |
|                       | Pick-up Voltage           | 70% of nominal voltage                                                     |                                  |
|                       | Drop-out Voltage          | 10% of nominal voltage                                                     |                                  |
|                       | Contact Arrangement       | SPDT, 1 Form C                                                             |                                  |
| Contact               | Contact Material          | SC111<br>SC211<br>BAS 111 Silver<br>BS 211<br>BAS 511 Silver-Cadmium Oxide |                                  |
|                       | Contact Resistance        | Max. 100 mOhms                                                             | at initial value                 |
|                       | Max. Switching Power      | DC 30W/AC 60 VA                                                            |                                  |
|                       | Max. Switching Volt.      | 60 VDC/120 VAC                                                             | at resistive load                |
|                       | Max. Switching Current    | 2A DC/AC BAS BS,SC<br>5A DC/AC BAS 511                                     |                                  |
| Time                  | Operate Time              | Approx. 2 mS                                                               | at nominal voltage               |
|                       | Release Time              | Approx. 1 mS                                                               |                                  |
|                       | Bounce Time (Operating)   | Max. 2 mS                                                                  | no bounce in break contact       |
|                       | Bounce Time (Releasing)   | Max. 7 mS                                                                  | no bounce in make contact        |
| Insulation Resistance |                           | Min. 100 M Ohms                                                            | at 500 VDC                       |
| Dielectric Strength   |                           | 1000 VAC                                                                   | 1 minute                         |
| Vibration Resistance  |                           | 1.5 mm DA<br>10 ~ 55 Hz                                                    |                                  |
| Temperature Range     |                           | -25°C ~ +55°C                                                              |                                  |
| Life                  | Mechanical Life           | 500 x 10 <sup>4</sup> times                                                |                                  |
|                       | Electrical Life           | 50 x 10 <sup>4</sup> times                                                 | at 24 VDC, 1A resistive load     |
|                       |                           | 10 x 10 <sup>4</sup> times                                                 | at 120 VAC, 0.5A, resistive load |
| Weight                |                           | Approx. 4 g                                                                |                                  |

DIMENSIONS

Dimensions: inch (mm)

**BAS/BS Series**  
Internal Connections  
(Bottom View)

**Drilling Plan** 6- $\varnothing$  0.039 hole (1)

**Operate and Release Time for HAS Relays**

Time (mS)  
Applied Power (W)

— Make Contact  
— Break Contact

**Operate and Release Time for HS (High Sensitivity) Relays**

Time (mS)  
Applied Power (W)

— Make Contact  
— Break Contact

**Temperature Rise of Coil**

Temperature rise (°C)  
Applied power (W)

Rating (Type 111)  
Rating (Type 211)

**SC Series**

Internal Connections  
(Bottom View)

**FCC 1500V Surge Test Wave Form**

PART NUMBERS

|            |            |           |
|------------|------------|-----------|
| BAS111DC3  | BAS511DC3  | SC111DC48 |
| BAS111DC5  | BAS511DC5  | SC211DC3  |
| BAS111DC6  | BAS511DC6  | SC211DC5  |
| BAS111DC9  | BAS511DC9  | SC211DC6  |
| BAS111DC12 | BAS511DC12 | SC211DC9  |
| BAS111DC18 | BAS511DC18 | SC211DC12 |
| BAS111DC24 | BAS511DC24 | SC211DC18 |
| BAS111DC48 | BAS511DC48 | SC211DC24 |
| BS211DC3   | SC111DC3   |           |
| BS211DC5   | SC111DC5   |           |
| BS211DC6   | SC111DC6   |           |
| BS211DC9   | SC111DC9   |           |
| BS211DC12  | SC111DC12  |           |
| BS211DC18  | SC111DC18  |           |
| BS211DC24  | SC111DC24  |           |