

Double Pole, Electrically Held, 2 Amps and Less (Continued)

.150 Grid-space Relays

Type 3SBC (2PDT) Standard

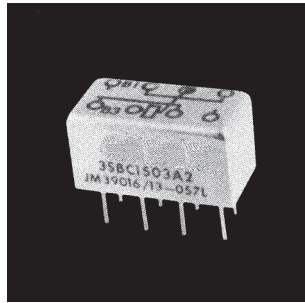
135 mW 2PDT

50 mW (Form AB)

1 PNC-1 PNO

Product Facts

- Low profile... only 0.32 inches high
- Internal diode for coil transient suppression and transistor driven models available
- Qualified to MIL-R-39016/13
- RF designs available



The .150 Grid-space relay — only 0.32 inches high — saves space in electronic packaging. The pin spacing allows you to insert the relay with no intermediate pin spreaders as well as meet applicable military specifications.

Electrical Characteristics

Contact Ratings —

DC resistive — 2 amps at 28 volts (50,000 operations)
 1 Amp @ 28 V (100,000 operations)
 DC inductive — 0.5 amps at 28 volts, 200 mH
 AC resistive — 0.5 amps at 115 volts
 AC — 0.125 amps at 115 volts (case grounded)
 Low-level — 50 μ A at 50 mV
 Peak AC or DC

Contact Resistance —

0.050 ohms max.; 0.150 ohms after life test

Life — 100,000 operations at rated loads listed; 1,000,000 operations at low-level loads

Operating Characteristics

Operate Time — 4 ms max.

Release Time — 4 ms max.

Contact Bounce — 1.5 ms

Dielectric Strength —

500 volts rms at sea level;
 350 volts rms at 70,000 feet and above

Insulation Resistance — 1,000 megohm min. over temperature range

Environmental Characteristics

Vibration — 30G, to 3000 Hz

Shock — 100 G at 11 ms

Temperature — -65°C to +125°C

See page 1-44 for Mounting Forms, Terminals and Circuit Diagrams.

Coil Table Type 3SBC (All Values DC)*2PDT, 135 mW Sensitivity: (Code 1)

| Coil Code Letter | Coil Resistance @ 25C (ohms) | Voltage Calibrated, Code 5 | | | | Current Calibrated, Code 6 | | | |
|------------------|------------------------------|----------------------------|--------------------------|-----------------------------|------|-------------------------------------|---------------------------------|----------------------------------|------|
| | | Suggested Source Volts† | Max. Operate Volts @ 25C | Release Voltage Range @ 25C | | Max. Continuous Current @ 125C (mA) | Max. Operate Current @ 25C (mA) | Release Current Range @ 25C (mA) | |
| | | | | Max. | Min. | | | Max. | Min. |
| A | 44 \pm 10% | 3.5-6.2 | 2.4 | 1.45 | 0.26 | 87.0 | 54.5 | 32.7 | 6.00 |
| B | 56 \pm 10% | 4.0-7.0 | 2.7 | 1.6 | 0.3 | 77.0 | 48.3 | 28.6 | 5.30 |
| D | 140 \pm 10% | 6.4-12.0 | 4.4 | 2.6 | 0.5 | 50.3 | 31.4 | 18.5 | 3.60 |
| E | 210 \pm 10% | 8.0-16.0 | 5.4 | 3.2 | 0.6 | 40.0 | 25.7 | 15.4 | 2.80 |
| L | 650 \pm 10% | 13.6-24.0 | 9.5 | 5.6 | 1.0 | 22.9 | 14.3 | 8.6 | 1.54 |
| K | 1350 \pm 10% | 20.0-35.0 | 13.5 | 8.1 | 1.5 | 15.5 | 10.0 | 6.0 | 1.10 |
| N | 2245 \pm 10% | 26.0-46.0 | 17.1 | 10.5 | 1.9 | 12.0 | 7.6 | 4.7 | 0.84 |

Coil-Data (All Values DC)* Type 3SBC Form AB 50 mW Sensitivity non mil spec: (Code 2)

| Coil Code Letter | Coil Resistance @ 25C (ohms) | Voltage Calibrated, Code 5 | | | | Current Calibrated, Code 6 | | | |
|------------------|------------------------------|----------------------------|--------------------------|-----------------------------|------|-------------------------------------|---------------------------------|----------------------------------|------|
| | | Suggested Source Volts† | Max. Operate Volts @ 25C | Release Voltage Range @ 25C | | Max. Continuous Current @ 125C (mA) | Max. Operate Current @ 25C (mA) | Release Current Range @ 25C (mA) | |
| | | | | Max. | Min. | | | Max. | Min. |
| B | 56 \pm 10% | 2.6-7.0 | 1.8 | 1.1 | 0.16 | 46.5 | 29.1 | 18.2 | 3.30 |
| C | 85 \pm 10% | 3.3-9.5 | 2.3 | 1.4 | 0.20 | 38.7 | 24.2 | 15.1 | 2.70 |
| D | 140 \pm 10% | 4.3-12.0 | 2.9 | 1.8 | 0.27 | 30.4 | 19.0 | 11.9 | 2.10 |
| E | 210 \pm 10% | 5.3-14.0 | 3.6 | 2.2 | 0.33 | 24.8 | 15.5 | 9.7 | 1.75 |
| F | 360 \pm 10% | 6.7-19.0 | 4.5 | 2.8 | 0.41 | 18.9 | 11.8 | 7.2 | 1.30 |
| G | 510 \pm 10% | 8.2-23.0 | 5.6 | 3.5 | 0.51 | 15.8 | 9.9 | 6.2 | 1.10 |
| H | 775 \pm 10% | 10.0-26.0 | 6.8 | 4.2 | 0.62 | 12.8 | 8.0 | 5.0 | 0.90 |
| K | 1350 \pm 10% | 13.2-35.0 | 9.0 | 5.6 | 0.82 | 9.8 | 6.1 | 3.8 | 0.68 |
| N | 2245 \pm 10% | 16.8-46.0 | 11.4 | 7.1 | 1.00 | 7.4 | 4.6 | 2.9 | 0.52 |

*Values listed are factory test and inspection data. User should allow for meter variations.

†At nominal resistance plus 10%.

‡Applicable over the operating temperature range in circulating air.

See Page 1-42 for ordering instructions.

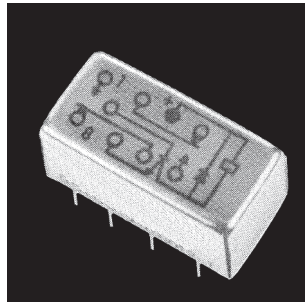
* The part number example shown on this page is for catalog items. For a list of specific QPL part numbers, please see the index in Section 15.

Double Pole, Electrically Held, 2 Amps and Less (Continued)

**.150 Grid-space
Hybrid Relays**
Single Diode, Dual Diode
Type 3SBC (2PDT)
135 mW

Product Facts

- Low profile... only
0.32 inches high
- 50 milliwatt forms available
- Qualified to MIL-R-39016/37
- Qualified to MIL-R-39016/38
- RF designs available



The hybrid .150 Grid-space relay — only 0.32 inches high — saves space in electronic packaging. The pin spacing allows you to insert the relay with no intermediate pin spreader.

Electrical Characteristics

Contact Ratings —

DC resistive — 2 amps at 28 volts
(50,000 operations)
1 Amp @ 28 V (100,000 operations)
DC inductive — 0.5 amps at 28 volts,
200 mH
AC resistive — 0.5 amps at 115 volts
AC — 0.125 amps at 115 volts (case
grounded)
Low-level — 50 μ A at 50 mV
Peak AC or DC

Contact Resistance —

0.050 ohms max.; 0.150 ohms after life
test

Life — 100,000 operations at rated
loads listed; 1,000,000 operations at
low-level loads

Operating Characteristics

Operate Time — 4 ms max.

Release Time — 6 ms max.

Contact Bounce — 1.5 ms

Dielectric Strength (Note 1) —

500 volts rms at sea level;

350 volts rms at 70,000 feet and above

Insulation Resistance (Note 1) —

1,000 megohm min. over temperature
range

Environmental Characteristics

Vibration — 30G, to 3000 Hz

Shock — 100 G at 11 ms

Temperature — -65°C to +125°C

Semiconductor Characteristics at 25°C

Diode —

Max. Negative Transient — 1.0 volt

Breakdown Voltage — 100 VDC @ 10 μ A

Max. Leakage Current — 1 μ A @ 50 VDC

See page 1-44 for Mounting Forms,
Terminals and Circuit Diagrams.

Coil Table Single Diode (All Values DC)*(2DPT), 135 mW Sensitivity: (Code 5)

| Coil Code Letter | Coil Resistance (@ 25C (ohms) | Voltage Calibrated, Code 5 | | | | Current Calibrated, Code 6 | | | |
|------------------------|--|-------------------------------|------------------------------------|---------------------------------|------|--|--|--------------------------------------|------|
| | | Suggested Source Volts† | Max. Operate Volts (@ 25C | Release Voltage Range (@ 25C | | Max. Contin- uous Current (@ 125C (mA) | Max. Operate Current (@ 25C (mA) | Release Current Range (@ 25C (mA) | |
| | | | | Max. | Min. | | | Max. | Min. |
| A | 44 \pm 10% | 3.5- 6.2 | 2.4 | 1.45 | 0.26 | 87.0 | 54.5 | 32.7 | 6.00 |
| B | 56 \pm 10% | 4.0- 7.0 | 2.7 | 1.6 | 0.3 | 77.0 | 48.3 | 28.6 | 5.30 |
| D | 140 \pm 10% | 6.4-12.0 | 4.4 | 2.6 | 0.5 | 50.3 | 31.4 | 18.5 | 3.60 |
| E | 210 \pm 10% | 8.0-16.0 | 5.4 | 3.2 | 0.6 | 40.0 | 25.7 | 15.4 | 2.80 |
| L | 650 \pm 10% | 13.6-24.0 | 9.5 | 5.6 | 1.0 | 22.9 | 14.3 | 8.6 | 1.54 |
| K | 1350 \pm 10% | 20.0-35.0 | 13.5 | 8.1 | 1.5 | 15.5 | 10.0 | 6.0 | 1.10 |
| N | 2245 \pm 10% | 26.0-46.0 | 17.1 | 10.5 | 1.9 | 12.0 | 7.6 | 4.7 | 0.84 |

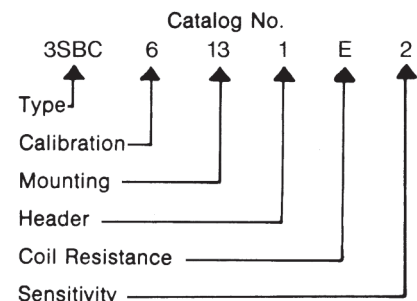
Coil Table Dual Diode (All Values DC)*(2DPT), 135 mW Sensitivity: (Code 6)

| | ** | | | | | | | | |
|---|----------------|-----------|------|------|------|------|------|------|-----|
| A | 44 \pm 10% | 3.9- 7.0 | 3.4 | 2.0 | 0.37 | 98.2 | 77.3 | 45.5 | 8.4 |
| B | 56 \pm 10% | 4.6- 8.0 | 3.7 | 2.2 | 0.41 | 89.8 | 66.1 | 39.3 | 7.1 |
| D | 140 \pm 10% | 7.8-12.0 | 5.4 | 3.2 | 0.6 | 52.4 | 38.6 | 22.9 | 4.3 |
| E | 210 \pm 10% | 9.3-16.0 | 6.4 | 3.8 | 0.7 | 41.4 | 30.5 | 18.1 | 3.3 |
| L | 650 \pm 10% | 15.0-24.0 | 10.5 | 6.2 | 1.1 | 23.6 | 16.2 | 9.5 | 1.7 |
| K | 1350 \pm 10% | 21.0-35.0 | 14.5 | 8.7 | 1.6 | 16.0 | 10.7 | 6.4 | 1.2 |
| N | 2245 \pm 10% | 27.0-46.0 | 18.1 | 10.9 | 2.0 | 12.1 | 8.1 | 4.9 | 0.9 |

Ordering Instructions

Example: The relay selected in the example is a FORM AB .150-grid relay, current calibrated, and bracket mounting with 0.13-inch solder hook header, 210 ohms coil resistance, and 50 mW sensitivity. By choosing the proper code for each of these relay characteristics, the catalog number is 3SBC6131E2. The letter R following sensitivity code indicates relay received 5000 operation miss-test. Ex. 3SBC6131E2R.

Note: Relays specified by catalog numbers (per above directions) are general use items controlled by catalog specifications. Relays to be controlled by customer drawings — or relays having requirements not covered in this publication — will be assigned special catalog numbers upon request.



* 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.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Industrial Relays](#) category:

Click to view products by [TE Connectivity](#) manufacturer:

Other Similar products are found below :

[6-1617801-8](#) [6-1618107-9](#) [EV250-4A-02](#) [EV250-6A-01](#) [FCA-325-159](#) [FCA-410-138](#) [8-1618273-6](#) [9-1618397-7](#) [GCA32A208VAC60HZ](#)
[GCA63A600VAC60HZ](#) [1-1833005-4](#) [H-16/S1](#) [H-8C](#) [H-8/S68](#) [ACC530U20](#) [RF303ZM4-12](#) [DH18DA](#) [AR4-15F13-C01](#) [AR7-41F11](#)
[ATL68011](#) [AVR907](#) [B329](#) [B490A](#) [1618095-3](#) [1618104-9](#) [1618279-1](#) [BHR124Y](#) [N417](#) [2071229-4](#) [2-1617748-6](#) [2-1618396-6](#) [2-1618398-1](#)
[JMAPD-5XL](#) [PBE-120/208-ASE](#) [JMGACD-5M](#) [JMGSCD-5L](#) [PBO-40A3040](#) [KA-3C-12A](#) [RT334012WG](#) [SAH159](#) [SF5201F02](#) [301-17SX](#)
[SL6H3-26.5VDC](#) [1618105-2](#) [1618112-6](#) [1618113-5](#) [1618276-6](#) [A837D](#) [A862B1](#) [ACC730-8025B](#)