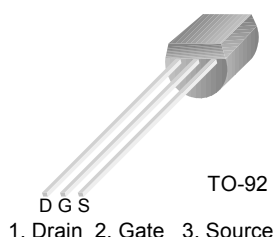


# BF246B

## N-Channel Switch

- This device is designed for low level analog switching, sample and hold circuits and chopper stabilized amplifiers.
- Sourced from process 51.
- See J111 for characteristics.



### Absolute Maximum Ratings\*

$T_a = 25^\circ\text{C}$  unless otherwise noted

| Symbol         | Parameter                                        | Value     | Units            |
|----------------|--------------------------------------------------|-----------|------------------|
| $V_{DG}$       | Drain-Gate Voltage                               | 25        | V                |
| $V_{GS}$       | Gate-Source Voltage                              | -25       | V                |
| $I_{GF}$       | Forward Gate Current                             | 50        | mA               |
| $T_J, T_{STG}$ | Operating and Storage Junction Temperature Range | -55 ~ 150 | $^\circ\text{C}$ |

\* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

**Notes:**

1. These ratings are based on a maximum junction temperature of 150 degrees C.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

### Electrical Characteristics

$T_a = 25^\circ\text{C}$  unless otherwise noted

| Symbol                     | Parameter                         | Conditions                               | Min. | Max   | Units |
|----------------------------|-----------------------------------|------------------------------------------|------|-------|-------|
| <b>Off Characteristics</b> |                                   |                                          |      |       |       |
| $V_{(BR)GSS}$              | Gate-Source Breakdown Voltage     | $I_G = 1.0\mu\text{A}, V_{DS} = 0$       | -25  |       | V     |
| $I_{GSS}$                  | Gate Reverse Current              | $V_{GS} = -15\text{V}, V_{DS} = 0$       |      | -5.0  | nA    |
| $V_{GS(off)}$              | Gate-Source Cutoff Voltage        | $V_{DS} = 15\text{V}, I_D = 10\text{nA}$ | -0.6 | -14.5 | V     |
| <b>On Characteristics*</b> |                                   |                                          |      |       |       |
| $I_{DSS}$                  | Zero-Gate Voltage Drain Current * | $V_{DS} = 15\text{V}, V_{GS} = 0$        | 60   | 140   | mA    |

### Thermal Characteristics

$T_a = 25^\circ\text{C}$  unless otherwise noted

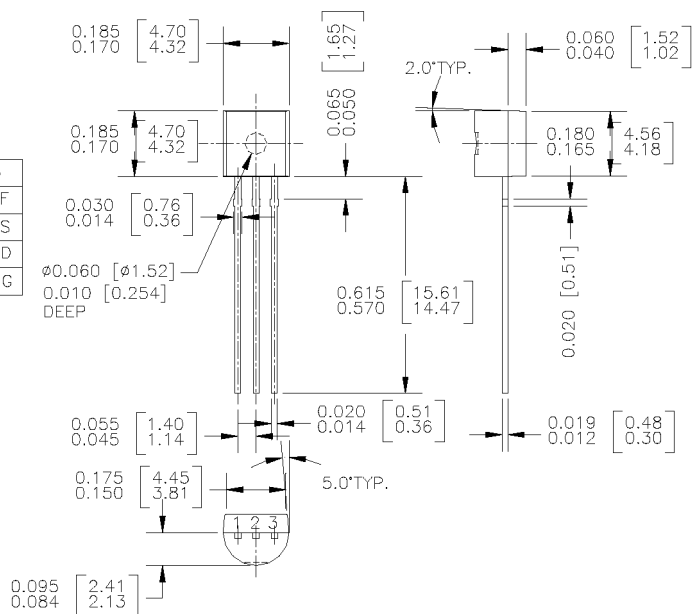
| Symbol          | Parameter                               | Value      | Units                      |
|-----------------|-----------------------------------------|------------|----------------------------|
| $P_D$           | Total Device Dissipation                | 625<br>5.0 | mW<br>mW/ $^\circ\text{C}$ |
| $R_{\theta JC}$ | Thermal Resistance, Junction to Case    | 125        | $^\circ\text{C/W}$         |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient | 357        | $^\circ\text{C/W}$         |

## Mechanical Dimensions

## TO-92

TO-92 (92,94,96)

| P\B | 92 |   | 94 |   | 96 |   |
|-----|----|---|----|---|----|---|
|     | B  | F | B  | F | B  | F |
| 1   | E  | D | E  | D | B  | S |
| 2   | B  | S | C  | G | E  | D |
| 3   | C  | G | B  | S | C  | G |



### Dimensions in Millimeters

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| Datasheet Identification | Product Status         | Definition                                                                                                                                                                                                            |
|--------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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