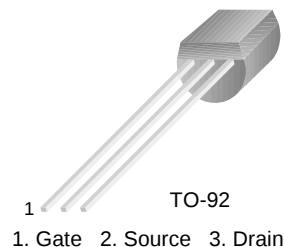


## BF245A/BF245B/BF245C

### N-Channel Amplifiers

- This device is designed for VHF/UHF amplifiers.
- Sourced from process 50.



### Absolute Maximum Ratings $T_a=25^\circ\text{C}$ unless otherwise noted

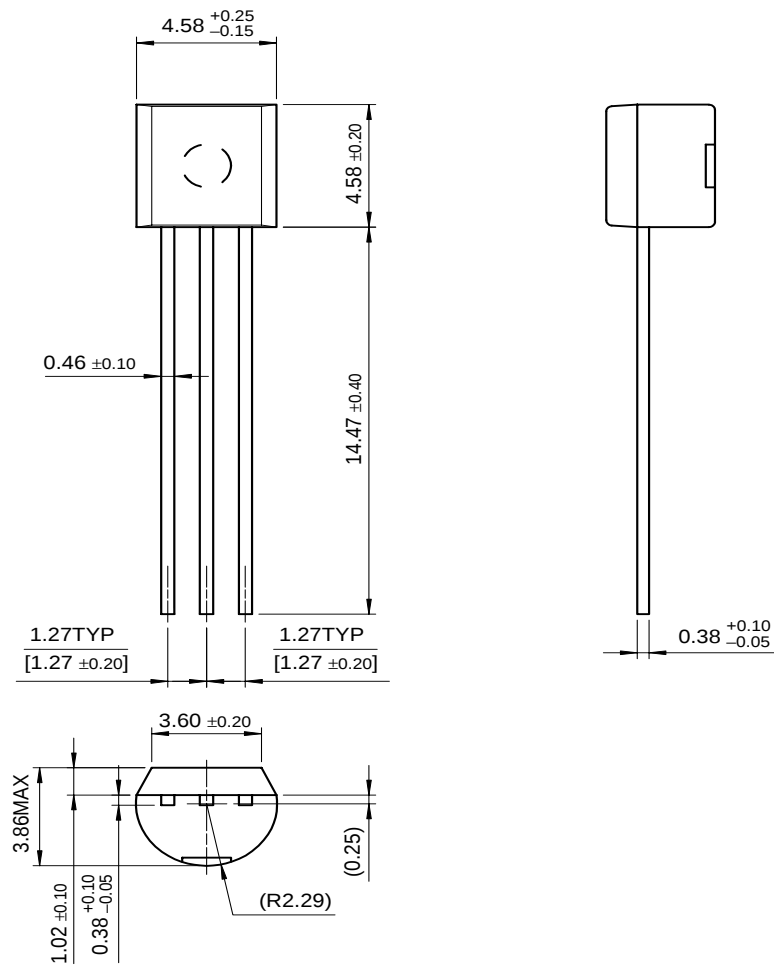
| Symbol         | Parameter                                                                            | Value      | Units                      |
|----------------|--------------------------------------------------------------------------------------|------------|----------------------------|
| $V_{DG}$       | Drain-Gate Voltage                                                                   | 30         | V                          |
| $V_{GS}$       | Gate-Source Voltage                                                                  | -30        | V                          |
| $I_{GF}$       | Forward Gate Current                                                                 | 10         | mA                         |
| $P_D$          | Total Device Dissipation @ $T_a=25^\circ\text{C}$<br>Derate above $25^\circ\text{C}$ | 350<br>2.8 | mW<br>mW/ $^\circ\text{C}$ |
| $T_J, T_{STG}$ | Operating and Storage Junction Temperature Range                                     | - 55 ~ 150 | $^\circ\text{C}$           |

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

| Symbol                     | Parameter                              | Test Condition                                     | Min.                 | Max.                 | Units |
|----------------------------|----------------------------------------|----------------------------------------------------|----------------------|----------------------|-------|
| <b>Off Characteristics</b> |                                        |                                                    |                      |                      |       |
| $V_{(BR)GSS}$              | Gate-Source Breakdown Voltage          | $V_{DS} = 0, I_G = 1\mu\text{A}$                   | -30                  |                      | V     |
| $V_{GS}$                   | Gate-Source                            | $V_{DS} = 15\text{V}, I_D = 200\mu\text{A}$        | -0.4<br>-1.6<br>-3.2 | -2.2<br>-3.8<br>-7.5 | V     |
| $V_{GS(off)}$              | Gate-Source Cut-off Voltage            | $V_{DS} = 15\text{V}, I_D = 10\text{nA}$           | -0.5                 | -8                   | V     |
| $I_{GSS}$                  | Gate Reverse Current                   | $V_{GS} = -20\text{V}, V_{DS} = 0$                 |                      | -5                   | nA    |
| <b>On Characteristics</b>  |                                        |                                                    |                      |                      |       |
| $I_{DSS}$                  | Zero-Gate Voltage Drain Current        | $V_{GS} = 15\text{V}, V_{GS} = 0$                  | 2<br>6<br>12         | 6.5<br>15<br>25      | mA    |
| <b>On Characteristics</b>  |                                        |                                                    |                      |                      |       |
| $g_{fs}$                   | Common Source Forward Transconductance | $V_{GS} = 15\text{V}, V_{GS} = 0, f = 1\text{KHz}$ | 3                    | 6.5                  | mmhos |

## Package Dimensions

TO-92



Dimensions in Millimeters

BF245A/BF245B/BF245C

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| ActiveArray <sup>™</sup>                         | FACT Quiet series <sup>™</sup>  | ISOPLANAR <sup>™</sup>         | POP <sup>™</sup>                | Stealth <sup>™</sup>        |
| Bottomless <sup>™</sup>                          | FAST <sup>®</sup>               | LittleFET <sup>™</sup>         | Power247 <sup>™</sup>           | SuperSOT <sup>™</sup> -3    |
| CoolFET <sup>™</sup>                             | FAST <sup>™</sup>               | MicroFET <sup>™</sup>          | PowerTrench <sup>®</sup>        | SuperSOT <sup>™</sup> -6    |
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| Across the board. Around the world. <sup>™</sup> |                                 | OCXPro <sup>™</sup>            | RapidConnect <sup>™</sup>       | UltraFET <sup>®</sup>       |
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## PRODUCT STATUS DEFINITIONS

### Definition of Terms

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