

P-CHANNEL J-FET

Qualified per MIL-PRF-19500/ 296

Devices

2N2609

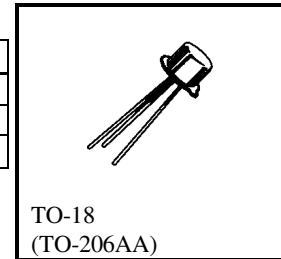
Qualified Level

JAN

ABSOLUTE MAXIMUM RATINGS ($T_A = +25^{\circ}\text{C}$ unless otherwise noted)

| Parameters / Test Conditions | Symbol | Value | Units |
|--|-------------------|-------------|--------------------|
| Gate-Source Voltage | V_{GSS} | 30 | V |
| Power Dissipation ⁽¹⁾ | P_D | 300 | mW |
| Operating Junction & Storage Temperature Range | T_{op}, T_{stg} | -65 to +200 | $^{\circ}\text{C}$ |

(1) Derate linearly 1.71 mW/ $^{\circ}\text{C}$ for $T_A > +25^{\circ}\text{C}$.



TO-18
(TO-206AA)

*See appendix A for package outline

ELECTRICAL CHARACTERISTICS ($T_A = +25^{\circ}\text{C}$ unless otherwise noted)

| PARAMETERS / TEST CONDITIONS | Symbol | Min. | Max. | Units |
|--|---------------|-------|------------|-----------------|
| Gate-Source Breakdown Voltage $V_{DS} = 0, I_G = 1.0 \mu\text{A}$ | $V_{(BR)GSS}$ | 30 | | Vdc |
| Gate Reverse Current $V_{DS} = 0, V_{GS} = 30 \text{ Vdc}$ $V_{DS} = 0, V_{GS} = 15 \text{ Vdc}$ | I_{GSS} | | 30 22.5 | ηA |
| Drain Current $V_{GS} = 0, V_{DS} = 5.0 \text{ Vdc}$ | I_{DDSS} | -2.0 | -10.0 | mAdc |
| Gate-Source Cutoff Voltage $V_{DS} = 5.0 \text{ V}, I_D = 1.0 \mu\text{A}$ | $V_{GS(off)}$ | 0.75 | 6.0 | Vdc |
| Magnitude of Small-Signal, Common-Source Short-Circuit Forward Transfer Admittance $V_{GS} = 0, V_{DS} = 5.0 \text{ Vdc}, f = 1.0 \text{ kHz}$ | $ Y_{fs2} $ | 2,000 | 6,250 | μmho |
| Small-Signal, Common-Source Short-Circuit Input Capacitance $V_{GS} = 0, V_{DS} = 5.0 \text{ Vdc}, f = 1.0 \text{ MHz}$ | C_{iss} | | 10 | pF |
| Common-Source Spot Noise Figure $V_{GS} = 0, V_{DS} = 5.0 \text{ Vdc}, f = 1.0 \text{ kHz}$ $B_w = 16\%, R_G = 1.0 \text{ megohms}, e_{gen} = 1.82 \text{ mVdc}, R_L = 220 \Omega$ | NF | | 3.0 | dB |