

## P-CHANNEL J-FET

Qualified per MIL-PRF-19500/296

### Devices

**2N2609**

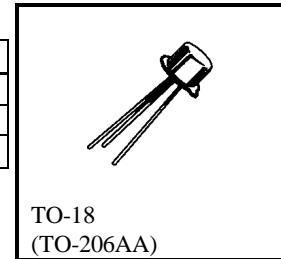
### Qualified Level

**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 <sup>(1)</sup>	$P_D$	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  $T_A > +25^{\circ}\text{C}$ .



\*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	$\eta\text{A}$
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	$\mu\text{mho}$
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