

**P-CHANNEL J-FET**  
 Equivalent To MIL-PRF-19500/296

**DEVICES**

**2N2609**

**LEVELS**

**MQ = JAN Equivalent**

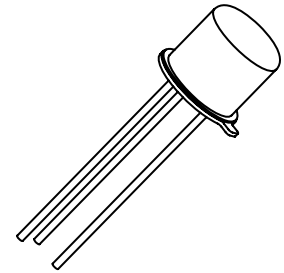
**ABSOLUTE MAXIMUM RATINGS ( $T_C = +25^\circ\text{C}$  unless otherwise noted)**

Parameters / Test Conditions	Symbol	Value	Unit
Gate-Source Voltage	$V_{GSS}$	30	V
Power Dissipation <sup>(1)</sup> $T_A = +25^\circ\text{C}$	$P_D$	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  $T_A > +25^\circ\text{C}$ .

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

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



**TO-18**  
**(TO-206AA)**