

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_{GS}	30	V
Power Dissipation ⁽¹⁾ $T_A = +25^{\circ}\text{C}$	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 $T_A > +25^{\circ}\text{C}$.



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 $V_{DS} = 0, I_G = 1.0 \mu\text{A}$	$V_{(BR)GS}$	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