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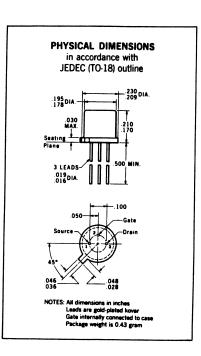
2N2609

GENERAL DESCRIPTION - The 2N2609 is a silicon Planar* P-channel field-effect transistor designed primarily for low power audio-frequency applications in industrial service.

ABSOLUTE MAXIMUM RATINGS (Note 1)

Maximum Temperatures

Operating Junction Temperature 175°C Storage Temperature -65°C to +200°C Soldering Temperature (10 seconds time limit) 260°C **Maximum Power Dissipation** Total Dissipation at 25°C Ambient Temperature (Note 2) 0.3 Watt **Maximum Voltages** v_{SG} Source to Gate Voltage -30 Volts v_{DS} Drain to Source Voltage -30 Volts v_{DG} Drain to Gate Voltage -30 Volts



ELECTRICAL CHARACTERISTICS (25°C Free Air Temperature unless otherwise noted)

Symbol	Characteristic	Min.	Max.	Units	Test Conditions		
BV _{GSS}	Gate to Source Breakdown Voltage	30		Volts	I _C	= 1.0 μA	V _{DS} = 0
IDSS	Drain Current	2.0	10	mA	v_{DS}	= -5.0 V	$V_{GS} = 0$
I _{GSS}	Gate Reverse Current		30	n A	v_{DS}	= 0	$V_{GS} = 5.0 \text{ V}$
V _P (V _{GS} off)	Gate to Source Pinch-off Voltage	1.0	4.0	Volts	v _{DS}	= -5.0 V	$I_D = 1.0 \mu A$
Y _{fs}	Forward Transadmittance ($f = 1.0 \text{ kHz}$)	2500		μ mhos	v _{DS}	= -5.0 V	$V_{GS} = 0$
Ciss	Input Capacitance (f = 140 kHz)		30	pF		= -5.0 V	$V_{GS} = 1.0 \text{ V}$
GSS (150°C)	Gate Reverse Current		30	$\mu \mathbf{A}$		= 0	$V_{GS} = 5.0 \text{ V}$
NF	Spot Noise Figure (f = 1.0 kHz)		3.0	dB		= -5.0 V	$V_{GS} = 0$
						= 1.0 MΩ	BW = 160 Hz

*Planar is a patented Fairchild process.

NOTES

- (1) These ratings are limiting values above which the serviceability of any individual semiconductor device may be impaired.
- (2) This rating gives a maximum junction temperature of 175°C and junction to ambient thermal resistance of 500°C/Watt (derating factor of 2.0 mW/°C).

