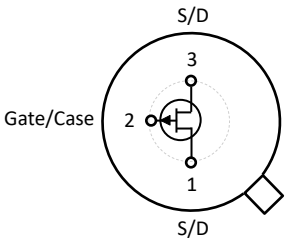
2N2608, 2N2609 P-Channel JFET
JAN equivalent products

Features

- InterFET P0032F Geometry
- Low gate leakage: 750fA typical @20V
- Low C_{ISS}: 3pF typical
- Typical noise: 2.0 nV/√Hz
- Typical gain: 2mS
- Low cutoff voltage: -1.0V typical
- Typical I_{DSS}: 12mA
- Typical BV_{GSS}: -35V
- High radiation tolerance
- RoHS, REACH, CMR compliant
- Custom test and binning options available
- Edge case SPICE modeling: InterFET SPICE

TO-18 Bottom View



Built to MIL-PRF-19500

(Source and Drain are interchangeable)

Industry Standard Crosses

- 2N6451

InterFET Similar Parts

- 2N5020-1, 2N5460-1-2, 2N3330-1, 2N5460-1-2
- IFP5020A, IFP5020B

Applications

- General: Amplifiers; Switches; Voltage regulators; Oscillators; Signal mixers; Noise generators
- Military/Aero: Radar; Communications; Satellites; Missiles guidance; Hydrophone preamplifiers
- Medical: Medical imaging systems; Medical monitors and recorders; Ultrasound equipment
- Audio: Tone control circuits; Headphone amplifiers; Audio filters; Electret Microphone

Description

The 30V InterFET 2N2608 and 2N2609 are targeted for data switches and low-level chopper designs. Gate leakages are typically less than 1nA at room temperature (25°C). The TO-18 package is hermetically sealed and suitable for military applications.

Ordering Information Custom Part and Binning Options Available

Part Number	Description	Case	Packaging
2N2608JANequiv, 2N2609JANequiv	JAN equivalent	TO-18	Bulk
2N2608JANTXequiv, 2N2609JANTXequiv	JANTX equivalent	TO-18	Bulk
2N2608JANTXVequiv, 2N2609JANTXVequiv	JANTXV equivalent	TO-18	Bulk
2N2608JANSequiv, 2N2609JANSequiv	JANS equivalent	TO-18	Bulk

Electrical Characteristics

Maximum Ratings (@ T_A = 25°C, Unless otherwise specified)

Parameters		Value	Unit
V_{RGS}	Reverse Gate Source and Gate Drain Voltage	30	V
I_{FG}	Continuous Forward Gate Current	-10	mA
P_D	Continuous Device Power Dissipation	300	mW
P	Power Derating	2	mW/°C
T_J	Operating Junction Temperature	-55 to 125	°C
T_{STG}	Storage Temperature	-65 to 150	°C

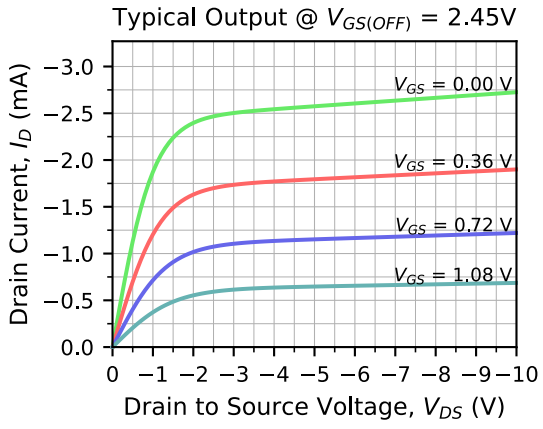
Static Characteristics (@ TA = 25°C, Unless otherwise specified)

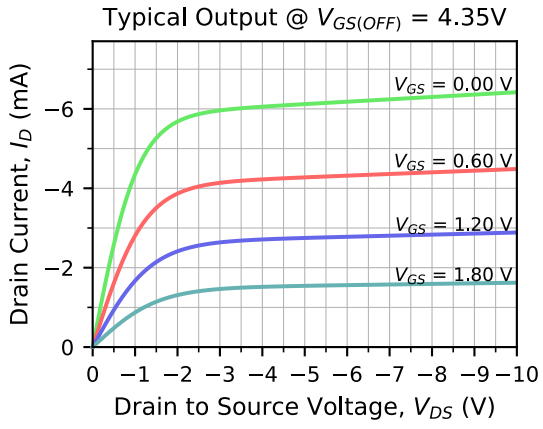
Parameters		Conditions	2N2608		2N2609		Unit
			Min	Max	Min	Max	
$V_{(BR)GSS}$	Gate to Source Breakdown Voltage	V_{DS} = 0V, I_G = 1µA	30		30		V
I_{GSS}	Gate to Source Reverse Current	V_{GS} = 5V, V_{DS} = 0V		10		10	nA
$V_{GS(OFF)}$	Gate to Source Cutoff Voltage	V_{DS} = -5V, I_D = -1nA	1	4	1	4	V
I_{DSS}	Drain to Source Saturation Current	V_{GS} = 0V, V_{DS} = -5V (Pulsed)	-0.9	-4.5	-2	-10	mA

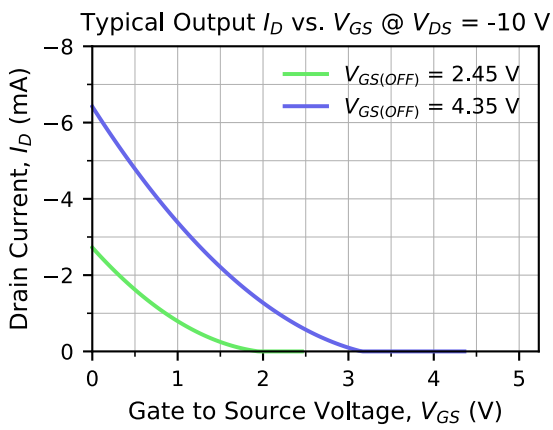
Dynamic Characteristics (@ TA = 25°C, Unless otherwise specified)

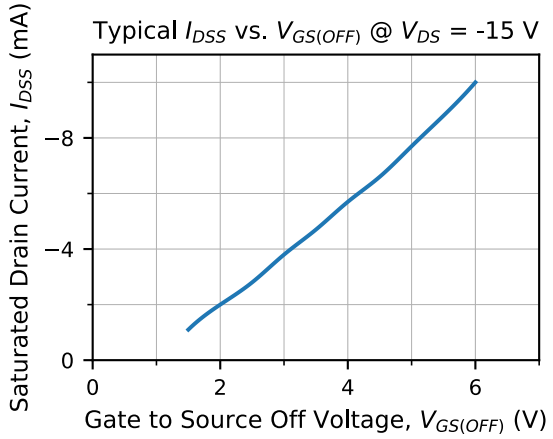
Parameters		Conditions	2N2608		2N2609		Unit
			Min	Max	Min	Max	
G_{FS}	Forward Transconductance	V_{DS} = -5V, V_{GS} = 0V, f = 1kHz	1000		2500		µS
C_{iss}	Input Capacitance	V_{DS} = -5.4V, V_{GS} = 1V, f = 1MHz		17		30	pF

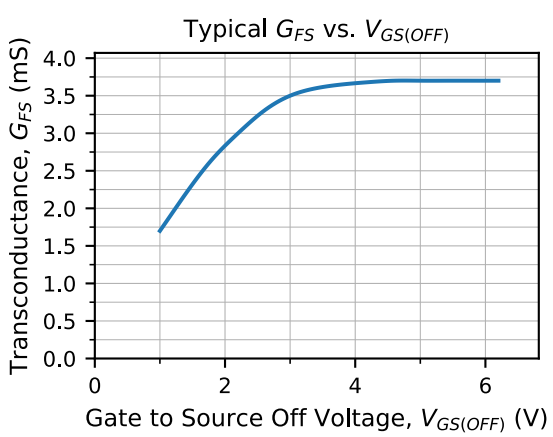
Typical 2N2608-9 Characteristics

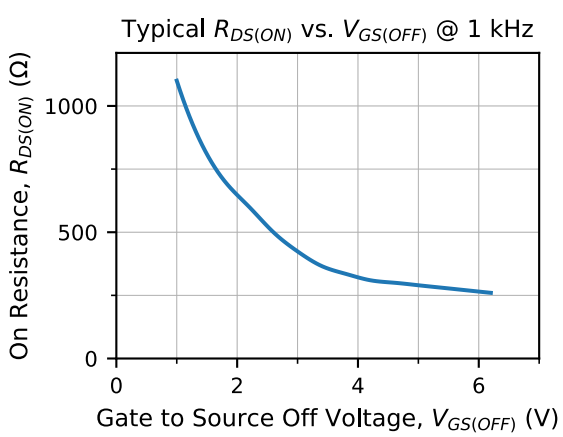




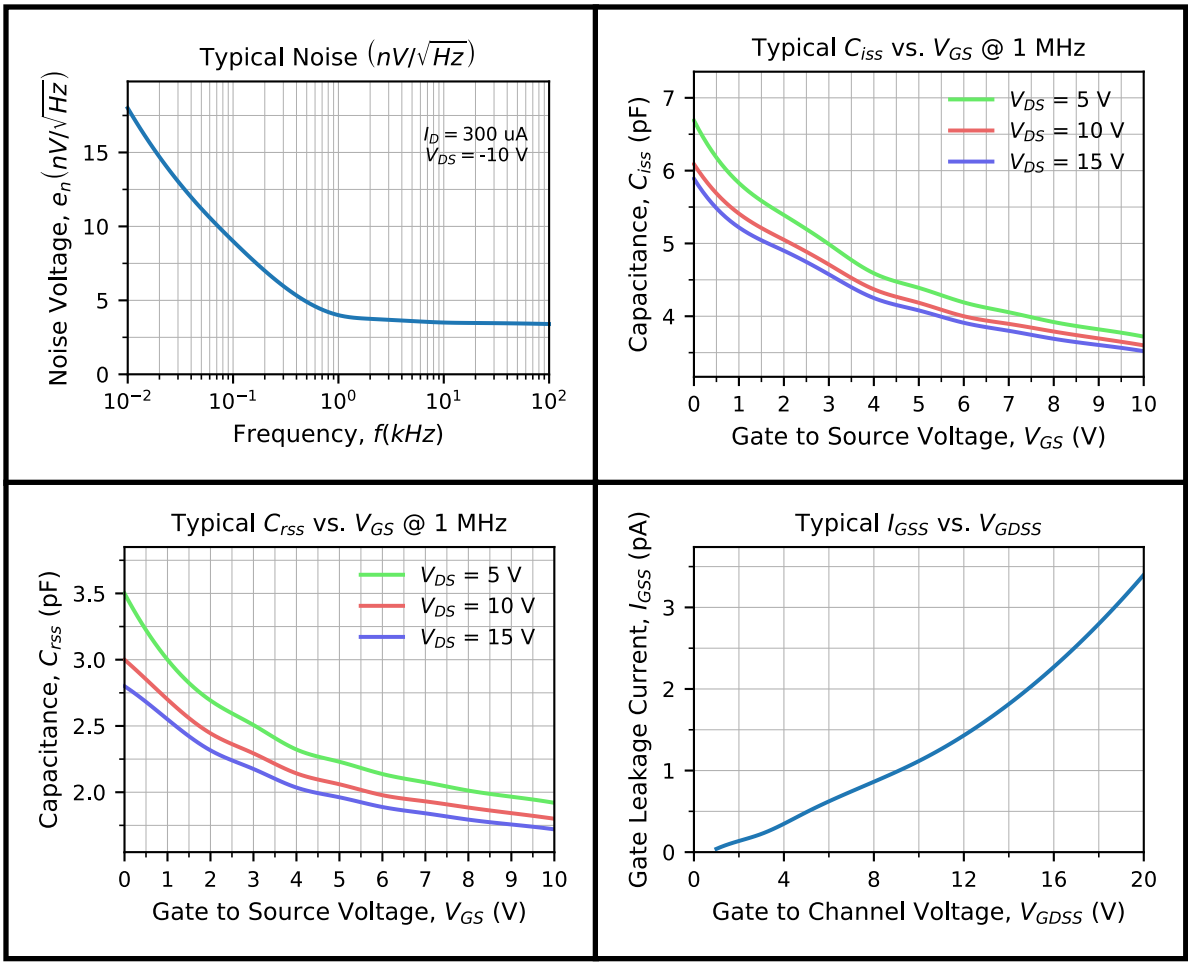






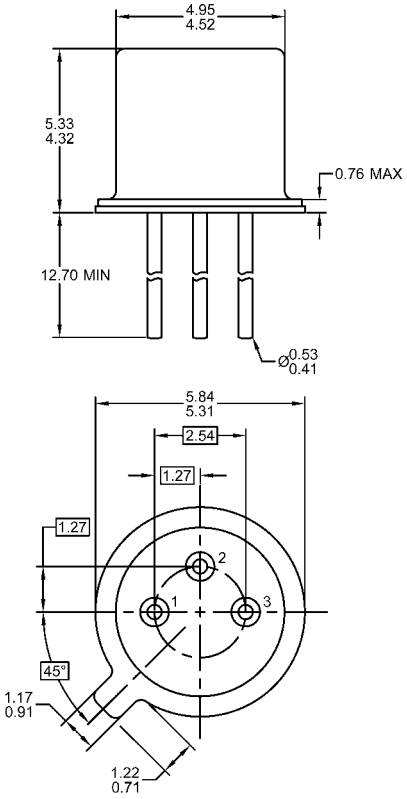


Typical 2N2608-9 Characteristics (Continued)



TO-18 Mechanical and Layout Data

Package Outline Data



1. All linear dimensions are in millimeters.
2. Package weight approximately 0.29 grams
3. Bulk product is shipped in standard ESD shipping material
4. Refer to JEDEC standards for additional information.

Compliance and Legal

Environment

InterFET parts follow the latest RoHS Compliance, REACH Compliance, Proposition 65 Statement, TSCA Statement, and Chemical Disposal and Waste Mitigation requirement and guidelines. For more on InterFET's Environmental Commitment please visit www.InterFET.com/environmental/.

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