2N5361-64 N-Channel JFETs

General Description

The 2N5361 thru 2N5364 series of N-channel JFETs is characterized for general purpose audio and RF amplifiers requiring tightly specified I_{DSS} ranges.

Absolute Maximum Ratings (25°C)

Gate-Drain or Gate-Source Voltage	−40V
Gate Current	10 mA
Total Device Dissipation (25°C Free-Air Temperature)	300 mW
Power Derating (to +175°C)	2 mW/°C
Storage Temperature Range	−65°C to +200°C
Operating Temperature Range	−65°C to +175°C
Lead Temperature (1/16" from case for 10 seconds)	300°C

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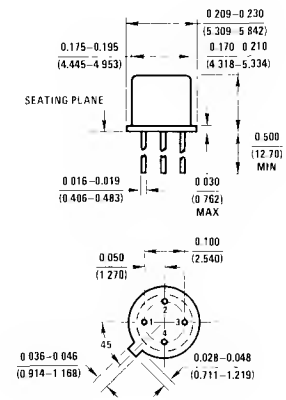

PIN	FET
1	S
2	D
3	G
4	Case

Electrical Characteristics (25°C unless otherwise noted)

PARAMETER		CONDITIONS		2N5361		2N5362		2N5363		2N5364		UNITS
				MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	
I_{GSS}	Gate Reverse Current	V_{DS} = 0, V_{GS} = −20V			-100		-100		100		100	pA
			T = 150°C		-100		100		−100		−100	nA
$V_{GS(off)}$	Gate-Source Cutoff Voltage	V_{DS} = 15V, I_D = 100 nA		-1.0	-6.0	-2.0	-7.0	-2.5	-8.0	-2.5	-8.0	V
BV_{GSS}	Gate-Source Breakdown Voltage	V_{DS} = 0, I_G = −10 μA		-40		-40		-40		-40		
I_{DSS}	Saturation Drain Current	V_{DS} = 15V, V_{GS} = 0, (Note 1)		2.5	5.0	4.0	8.0	7.0	14.0	9.0	18.0	mA
V_{GS}	Gate-Source Voltage	V_{DS} = 15V, I_D = (Note 2)		-1.0	-5.0	-1.3	-5.0	-2.0	-6.0	-2.0	-6.0	V
g_{fs}	Common-Source Forward Transconductance	V_{DS} = 15V, V_{GS} = 0	f = 1 kHz	1500	4500	2000	5500	2500	6000	2700	6500	μmho
Y_{fs}	Common-Source Forward Transadmittance		f = 100 MHz	1700		1900		2100		2200		
g_{oss}	Common-Source Output Conductance		f = 1 kHz		20		40		40		60	
C_{rss}	Common-Source Reverse Transfer Capacitance		f = 1 MHz		2		2		2		2	pF
C_{iss}	Common-Source Input Capacitance				6		6		6		6	
NF	Noise Figure		f = 100 Hz, R_G = 1 MΩ		2.5		2.5		2.5		2.5	dB

Note 1: Pulse test duration = 300 μs.

Note 2: I_D test conditions for Test 6: 2N5361 = 250 μA; 2N5362 = 400 μA; 2N5363 = 700 μA; 2N5364 = 900 μA.