n-channel JFETs *designed for . . .*

Performance Curves NRL See Section 4

■ General Purpose Amplifiers

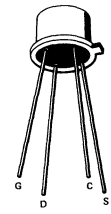
BENEFITS

- Low Noise
- Low Output Conductance

*ABSOLUTE MAXIMUM RATINGS (at 25°C)

Gate-Drain or Gate-Source Voltage (Note 1) . . . . . -30 V
Gate Current . . . . . 10 mA
Total Device Dissipation
(25°C Free Air Temperature) . . . . . 300 mW
Power Derating (to +175°C) . . . . . 2.0 mW/°C
Storage Temperature Range . . . . . -65 to +200°C
Operating Temperature Range . . . . . -65 to +175°C
Lead Temperature
(1/16" from case for 10 seconds) . . . . . 240°C

TO-72
See Section 5



*ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)

		Characteristic		2N5556		2N5557		2N5558		Unit	Test Conditions	
				Min	Max	Min	Max	Min	Max			
1	STATIC	I_{GSS}	Gate Reverse Current		-0.1		-0.1		-0.1	nA	V_{GS} = -15 V, V_{DS} = 0 V	
2					-100		-100		-100			T = 150°C
3		$V_{GS(off)}$	Gate-Source Cutoff Voltage	-0.2	-4.0	-0.8	5.0	-1.5	-6.0	V	V_{DS} = 15 V, I_D = 1 nA	
4		BV_{GSS}	Gate-Source Breakdown Voltage	-30		-30		-30			I_G = -10 μA, V_{DS} = 0 V	
5		I_{DSS}	Saturation Drain Current (Note 2)	0.5	2.5	2.0	5.0	4.0	10.0	mA	V_{DG} = 15 V, V_{GS} = 0 V	
6	DYNAMIC	g_{fs}	Common-Source Forward Transconductance	1500	6500	1500	6500	1500	6500	μmho	V_{DS} = 15 V, V_{GS} = 0 V	f = 1 kHz
7		g_{os}	Common-Source Output Conductance		20		20		20			
8		C_{rss}	Common-Source Reverse Transfer Capacitance		3		3		3	pF		f = 1 MHz
9		C_{iss}	Common-Source Input Capacitance		6		6		6			
10		$\bar{e}_n$	Common-Source Equivalent Short Circuit Input Noise Voltage		35		35		35	$\frac{nV}{\sqrt{Hz}}$		f = 10 Hz
11					20		20		20			f = 100 Hz
12		NF	Noise Figure		1		1		1	dB	V_{DS} = 15 V, V_{GS} = 0 V, BW = 1.0 Hz	f = 10 Hz
13					1		1		1			f = 100 Hz

*JEDEC registered data NRL

NOTES:

1. Geometry is symmetrical. Units may be operated with source and drain leads interchanged.
2. Pulse test duration ≤ 2 ms.