

n-channel JFET designed for . . .



Performance Curves NH
See Section 4

- VHF/UHF Amplifiers
- Mixers
- Oscillators

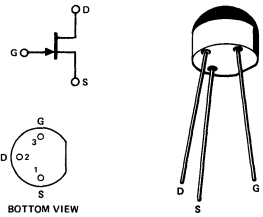
BENEFITS

- Specified for 200 MHz Operation

ABSOLUTE MAXIMUM RATINGS (25°C)

Drain-Gate Voltage	30 V
Source-Gate Voltage	30 V
Drain-Source Voltage	30 V
Forward Gate Current	10 mA
Total Device Dissipation @ $T_A = 25^\circ\text{C}$	350 mW
Derate above 25°C	3.5 mW/°C
Operating Junction Temperature Range	-55 to +125°C
Storage Temperature Range	-55 to +125°C
Lead Temperature (1/16" from case for 10 seconds)	260°C

TO-106
See Section 5



ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)

Characteristic		Min	Max	Unit	Test Conditions	
S T A T I C	I_{GSS} Gate Reverse Current		-250	pA	$V_{GS} = -20\text{ V}, V_{DS} = 0$	$T_A = +85^\circ\text{C}$
			-15	nA		
	BV_{GSS} Gate-Source Breakdown Voltage	-30		V	$I_G = -1\ \mu\text{A}, V_{DS} = 0$	
	$V_{GS(off)}$ Gate-Source Cutoff Voltage	-0.5	-8.0		$V_{DS} = 15\text{ V}, I_D = 1\ \mu\text{A}$	
	I_{DSS} Saturation Drain Current	4.0	25	mA	$V_{DS} = 15\text{ V}, V_{GS} = 0$ (Note 1)	
	$r_{DS(on)}$ Drain-Source ON Resistance		300	Ω	$I_D = 1\text{ mA}, V_{GS} = 0$	
D Y N A M I C	g_{fs} Common-Source Forward Transconductance	4,500	10,000	μmhos	$V_{DS} = 15\text{ V}, V_{GS} = 0$	$f = 1\text{ kHz}$
	$Re(y_{fs})$ Common-Source Forward Transconductance	4,000				$f = 200\text{ MHz}$
	$Re(y_{os})$ Common-Source Output Conductance		150			
	$Re(y_{is})$ Common-Source Input Conductance		800			
	C_{iss} Common-Source Input Capacitance		6.0	pF		$f = 1\text{ MHz}$
	C_{rss} Common-Source Reverse Transfer Capacitance		2.0			
	NF Noise Figure		3.0	dB	$V_{DS} = 15\text{ V}, V_{GS} = 0, R_G = 1\text{ K}\ \Omega$	$f = 200\text{ MHz}$
			5.0		$V_{DS} = 15\text{ V}, V_{GS} = 0, R_G = 1\text{ M}\ \Omega, BW = 5\text{ Hz}$	$f = 10\text{ Hz}$
	G_{PS} Common-Source Power Gain	15			$V_{DS} = 15\text{ V}, V_{GS} = 0$	$f = 200\text{ MHz}$

NOTE:

1. Pulse test $PW = 300\ \mu\text{s}$; duty cycle $\leq 3\%$.

NH