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## NTE326

### Silicon P-Channel JFET Transistor General Purpose AF Amplifier

**Absolute Maximum Ratings:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Drain-Gate Voltage, $V_{DG}$ .....	40V
Reverse Gate-Source Voltage, $V_{GSR}$ .....	40V
Forward Gate Current, $I_{G(f)}$ .....	10mA
Total Device Dissipation ( $T_A = +25^\circ\text{C}$ ), $P_D$ .....	310mW
Derate Above $25^\circ\text{C}$ .....	2.82mW/ $^\circ\text{C}$
Operating Junction Temperature Range, $T_J$ .....	$-65^\circ$ to $+135^\circ\text{C}$
Storage Temperature Range, $T_{stg}$ .....	$-55^\circ$ to $+150^\circ\text{C}$

**Electrical Characteristics:** ( $T_A = +25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
<b>OFF Characteristics</b>						
Gate-Source Breakdown Voltage	$V_{(BR)GSS}$	$I_G = 10\mu\text{A}, V_{DS} = 0$	40	-	-	V
Gate Reverse Current	$I_{GSS}$	$V_{GS} = 20\text{V}, V_{DS} = 0$	-	-	5	nA
		$V_{GS} = 20\text{V}, V_{DS} = 0, T_A = +100^\circ\text{C}$	-	-	1	$\mu\text{A}$
Gate-Source Cutoff Voltage	$V_{GS(off)}$	$I_D = 1\mu\text{A}, V_{DS} = 15\text{V}$	1.0	-	7.5	V
Gate-Source Voltage	$V_{GS}$	$I_D = 0.2\text{mA}, V_{DS} = 15\text{V}$	0.8	-	4.5	V
<b>ON Characteristics</b>						
Zero-Gate-Voltage Drain Current	$I_{DSS}$	$V_{DS} = 15\text{V}, V_{GS} = 0, f = 1\text{kHz}$	2	-	9	mA
<b>Small-Signal Characteristics</b>						
Forward Transfer Admittance	$ y_{fs} $	$V_{DS} = 15\text{V}, V_{GS} = 0, f = 1\text{kHz}$	1500	-	5000	$\mu\text{mho}$
Output Admittance	$ y_{os} $	$V_{DS} = 15\text{V}, V_{GS} = 0, f = 1\text{kHz}$	-	-	75	$\mu\text{mho}$
Input Capacitance	$C_{iss}$	$V_{DS} = 15\text{V}, V_{GS} = 0, f = 1\text{MHz}$	-	5	7	pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS} = 15\text{V}, V_{GS} = 0, f = 1\text{MHz}$	-	1	2	pF
<b>Functional Characteristics</b>						
Noise Figure	NF	$V_{DS} = 15\text{V}, V_{GS} = 0, R_G = 1\text{M}\Omega,$ $f = 100\text{Hz}, \text{BW} = 1\text{Hz}$	-	1.0	2.5	dB
Equivalent Short-Circuit Input Noise Voltage	$e_n$	$V_{DS} = 15\text{V}, V_{GS} = 0, f = 100\text{Hz},$ $\text{BW} = 1\text{Hz}$	-	60	115	$\text{nV}/\sqrt{\text{Hz}}$

