

## NTE133 N-Channel JFET Silicon Transistor General Purpose AF Amplifier

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

Drain-Source Voltage, $V_{DS}$ .....	25V
Drain-Gate Voltage, $V_{DG}$ .....	25V
Gate-Source Voltage, $V_{GS}$ .....	-25V
Gate Current, $I_G$ .....	10mA
Total Device Dissipation ( $T_A = +25^\circ\text{C}$ ), $P_D$ .....	300mW
Derate Above $25^\circ\text{C}$ .....	2mW/ $^\circ\text{C}$
Operating Junction Temperature Range, $T_J$ .....	-55° to +150°C
Storage Temperature Range, $T_{stg}$ .....	-55° to +150°C
Lead Temperature (During Soldering, 1/16" from case for 10sec), $T_L$ .....	+260°C

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Gate-Source Breakdown Voltage	$V_{(BR)GSS}$	$I_G = 1\mu\text{A}, V_{DS} = 0$	-25	-	-	V
Gate Reverse Current	$I_{GSS}$	$V_{GS} = 20\text{V}, V_{DS} = 0$	-	-	-1	nA
		$V_{GS} = 20\text{V}, V_{DS} = 0, T_A = +150^\circ\text{C}$	-	-	-1	$\mu\text{A}$
Gate-Source Cutoff Voltage	$V_{GS(off)}$	$I_D = 1\mu\text{A}, V_{DS} = 15\text{V}$	-	-	-6.5	V
Gate-Source Voltage	$V_{GS}$	$I_D = 50\mu\text{A}, V_{DS} = 15\text{V}$	-0.4	-	-6.0	V
Zero-Gate-Voltage Drain Current	$I_{DSS}$	$V_{DS} = 15\text{V}, V_{GS} = 0$	0.5	-	15	mA
Forward Transfer Admittance	$ y_{fs} $	$V_{DS} = 15\text{V}, V_{GS} = 0, f = 1\text{kHz}$	1000	-	7500	$\mu\text{mho}$

