

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°C | 2mW/ $^\circ\text{C}$ |
| Operating Junction Temperature Range, T_J | -55° to $+150^\circ\text{C}$ |
| Storage Temperature Range, T_{stg} | -55° to $+150^\circ\text{C}$ |
| Lead Temperature (During Soldering, 1/16" from case for 10sec), T_L | $+260^\circ\text{C}$ |

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 | μA |
| 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 | μmho |

