# 2N5358-60 N-Channel JFETs

## General Description

The 2N5358 thru 2N5360 series of N-channel JFETs is characterized for general purpose audio and RF amplifiers requiring tightly specified $I_{DSS}$ ranges.

## Absolute Maximum Ratings (25°C)

| | |
|---|---|
| Gate-Drain or Gate-Source Voltage | −40V |
| Gate Current | 10 mA |
| Total Device Dissipation (25°C Free-Air Temperature) | 300 mW |
| Power Derating (to +175°C) | 2 mW/°C |
| Storage Temperature Range | −65°C to +200°C |
| Operating Temperature Range | −65°C to +175°C |
| Lead Temperature (1/16" from case for 10 seconds) | 300°C |

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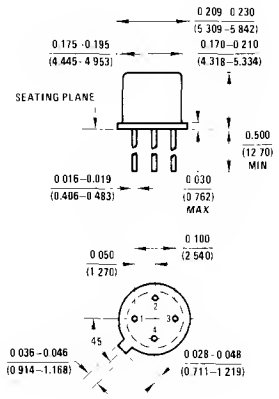


| PIN | FET |
|---|---|
| 1 | S |
| 2 | D |
| 3 | G |
| 4 | Case |

## Electrical Characteristics (25°C unless otherwise noted)

| PARAMETER | | CONDITIONS | | 2N5358 | | 2N5359 | | 2N5360 | | UNITS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MIN | MAX | MIN | MAX | MIN | MAX | |
| $I_{GSS}$ | Gate Reverse Current | $V_{DS}$ = 0, $V_{GS}$ = −20V | | | −100 | | −100 | | −100 | pA |
| | | | T = 150°C | | −100 | | −100 | | −100 | nA |
| $V_{GS(off)}$ | Gate-Source Cutoff Voltage | $V_{DS}$ = 15V, $I_D$ = 100 nA | | −0.5 | -3.0 | -0.8 | −4.0 | -0.8 | −4.0 | V |
| $BV_{GSS}$ | Gate-Source Breakdown Voltage | $V_{DS}$ = 0, $I_G$ = −10 μA | | −40 | | −40 | | −40 | | |
| $I_{DSS}$ | Saturation Drain Current | $V_{DS}$ = 15V, $V_{GS}$ = 0, (Note 1) | | 0.5 | 1.0 | 0.8 | 1.6 | 1.5 | 3.0 | mA |
| $V_{GS}$ | Gate-Source Voltage | $V_{DS}$ = 15V, $I_D$ = (Note 2) | | -0.3 | −1.5 | -0.4 | −2.0 | -0.5 | −2.5 | V |
| $g_{fs}$ | Common-Source Forward Transconductance | $V_{DS}$ = 15V, $V_{GS}$ = 0 | f = 1 kHz | 1000 | 3000 | 1200 | 3600 | 1400 | 4200 | μmho |
| $\|Y_{fs}\|$ | Common-Source Forward Transadmittance | | f = 100 MHz | 800 | | 900 | | 1400 | | |
| $g_{oss}$ | Common-Source Output Conductance | | f = 1 kHz | | 10 | | 10 | | 20 | |
| $C_{rss}$ | Common-Source Reverse Transfer Capacitance | | f = 1 MHz | | 2 | | 2 | | 2 | pF |
| $C_{iss}$ | Common-Source Input Capacitance | | | | 6 | | 6 | | 6 | |
| NF | Noise Figure | | f = 100 Hz, $R_G$ = 1 MΩ | | 2.5 | | 2.5 | | 2.5 | dB |

**Note 1:** Pulse test duration = 300 μs. Duty cycle ≤ 3%.
**Note 2:** $I_D$ test conditions for Test 5: 2N5358 = 50 μA; 2N5359 = 80 μA; 2N5360 = 150 μA