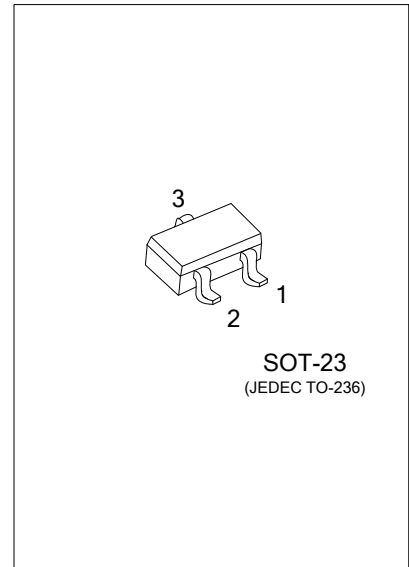




2SK508

N-CHANNEL JFET

HIGH FREQUENCY AMPLIFIER N-CHANNEL SILICON JUNCTION FIELD EFFECT TRANSISTOR



DESCRIPTION

The UTC **2SK508** is NPN transistor with High forward transfer admittance and low input capacitance.

It is suitable for cordless telephone, AM tuner and wireless installation, etc.

FEATURES

* High forward transfer admittance

* Low input capacitance

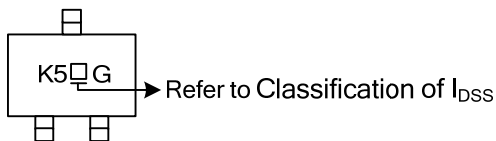
ORDERING INFORMATION

| Ordering Number | Package | Pin Assignment | | | Packing |
|-----------------|---------|----------------|---|---|-----------|
| | | 1 | 2 | 3 | |
| 2SK508G-x-AE3-R | SOT-23 | D | S | G | Tape Reel |

Note: Pin Assignment: D: Drain S: Source G: Gate

| | |
|------------------------|---|
| <p>2SK508G-x-AE3-R</p> | <p>(1) R: Tape Reel</p> <p>(2) AE3: SOT-23</p> <p>(3) x: Refer to Classification of I_{DSS}</p> <p>(4) G: Halogen Free and Lead Free</p> |
|------------------------|---|

MARKING



■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$, unless otherwise specified)

| PARAMETER | SYMBOL | RATINGS | UNIT |
|--|-----------|----------|------------------|
| Gate to Drain Voltage | V_{GDO} | -15 | V |
| Gate to Source Voltage | V_{GSO} | -15 | V |
| Drain to Source Voltage ($V_{GS}=-4.0\text{ V}$) | V_{DSX} | 15 | V |
| Drain Current (DC) | I_D | 50 | mA |
| Gate Current (DC) | I_G | 5 | mA |
| Power Dissipation | P_D | 200 | mW |
| Junction Temperature | T_J | 150 | $^\circ\text{C}$ |
| Storage Temperature | T_{STG} | -55~+150 | $^\circ\text{C}$ |

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$, unless otherwise specified)

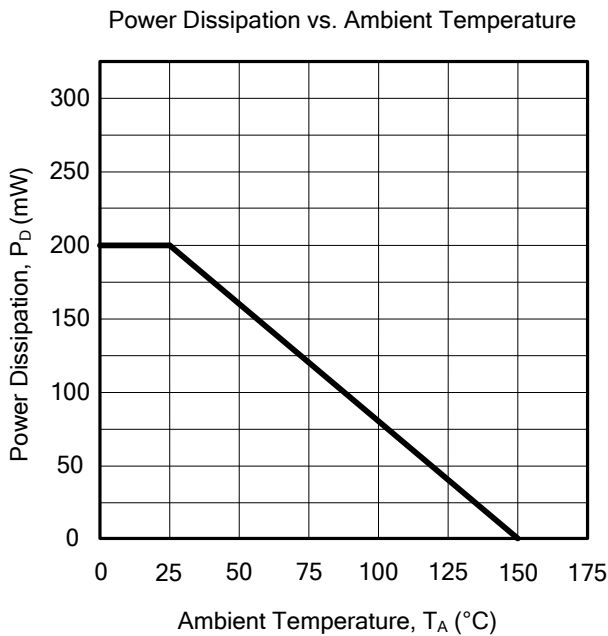
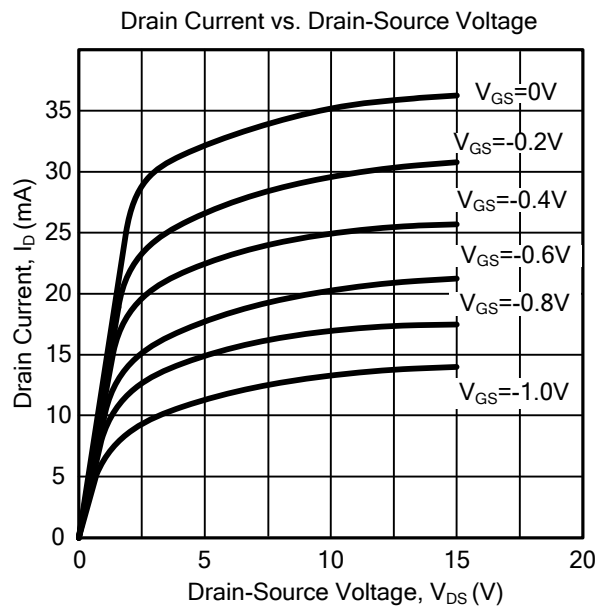
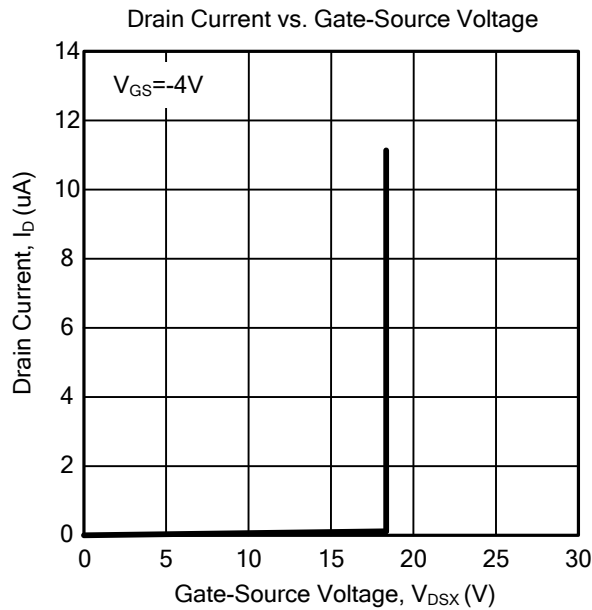
| PARAMETER | SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNIT |
|--|---------------|---|------|------|------|------|
| Gate Cut-Off Current | I_{GSS} | $V_{GS}=-10\text{V}$, $V_{DS}=0\text{V}$ | | | -1.0 | nA |
| Zero Gate Voltage Drain Current (Note) | I_{DSS} | $V_{DS}=5.0\text{V}$, $V_{GS}=0\text{V}$ | 10 | 20 | 50 | mA |
| Gate to Source Cut-Off Voltage | $V_{GS(off)}$ | $V_{DS}=5.0\text{V}$, $I_D=10\mu\text{A}$ | -0.6 | -1.4 | -3.5 | V |
| Forward Transfer Admittance (Note) | $ y_{FS} 1$ | $V_{DS}=5.0\text{V}$, $I_D=10\text{mA}$, $f=1.0\text{kHz}$ | 14 | 19 | | mS |
| | $ y_{FS} 2$ | $V_{DS}=5.0\text{V}$, $V_{GS}=0\text{V}$, $f=1.0\text{kHz}$ | 14 | 26 | | mS |
| Input Capacitance | C_{ISS} | $V_{DS}=5.0\text{V}$, $I_D=10\text{mA}$, $f=1.0\text{MHz}$ | | 4.8 | | pF |
| Feedback Capacitance | C_{RSS} | $V_{DS}=5.0\text{V}$, $I_D=10\text{mA}$, $f=1.0\text{MHz}$ | | 1.6 | | pF |

Note: Pulsed: $P_w \leq 1\text{ms}$, Duty Cycle $\leq 1\%$.

■ I_{DSS} CLASSIFICATION

| MARKING | K51 | K52 | K53 |
|----------------|---------|---------|---------|
| I_{DSS} (mA) | 10 ~ 20 | 15 ~ 30 | 25 ~ 50 |

■ TYPICAL CHARACTERISTICS



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