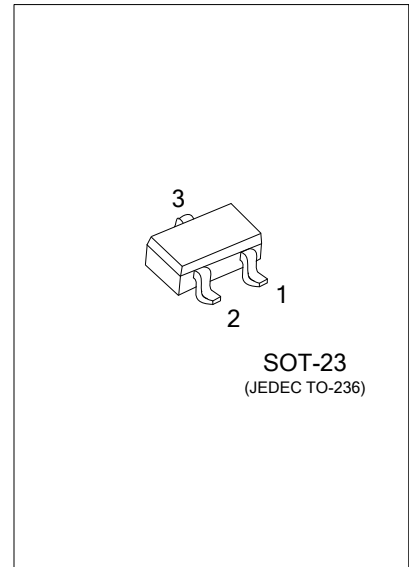




## 2SK508

## 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

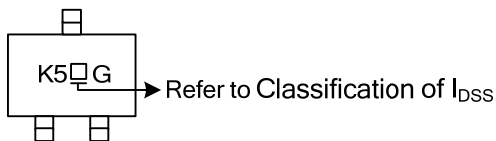
#### ORDERING INFORMATION

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 <math>I_{DSS}</math></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)

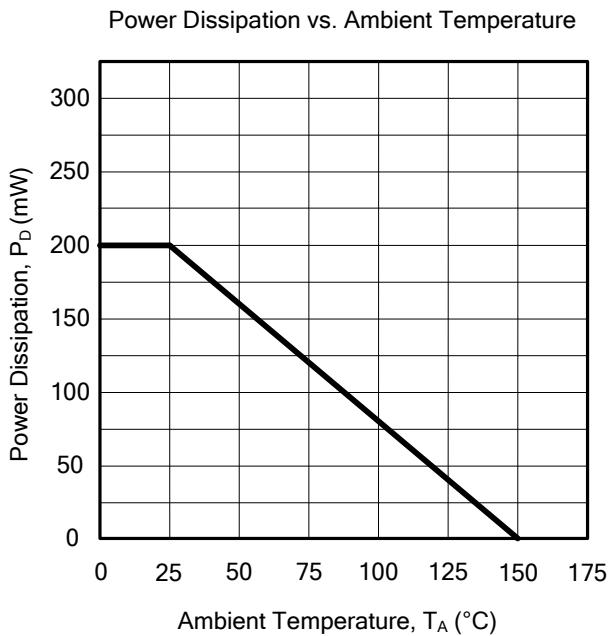
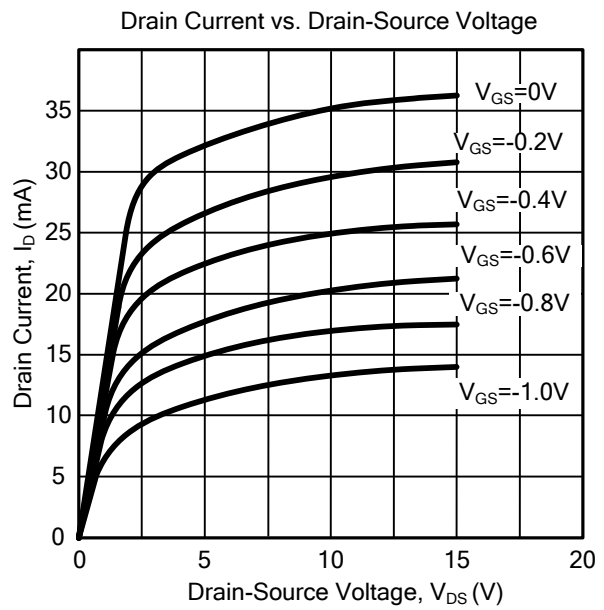
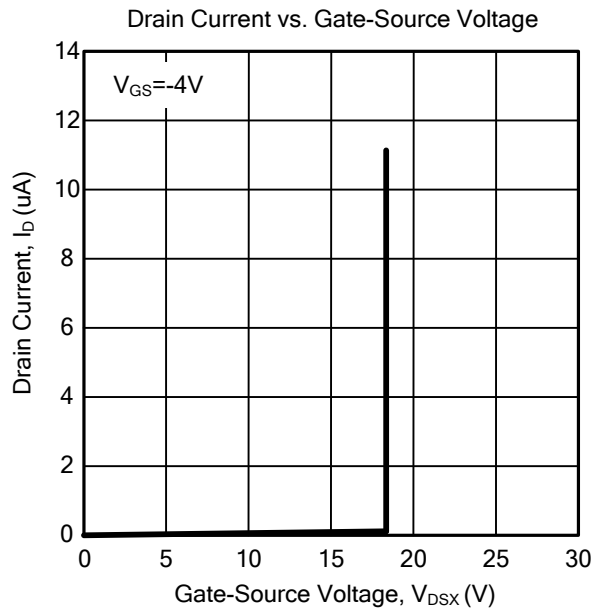
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Gate Cut-Off Current	$I_{GSS}$	$V_{GS}=-10\text{V}$ , $V_{DS}=0\text{V}$			-1.0	nA
Zero Gate Voltage Drain Current (Note)	$I_{DSS}$	$V_{DS}=5.0\text{V}$ , $V_{GS}=0\text{V}$	10	20	50	mA
Gate to Source Cut-Off Voltage	$V_{GS(off)}$	$V_{DS}=5.0\text{V}$ , $I_D=10\mu\text{A}$	-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



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.