



2SK508

Preliminary

NPN EPITAXIAL SILICON TRANSISTOR

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

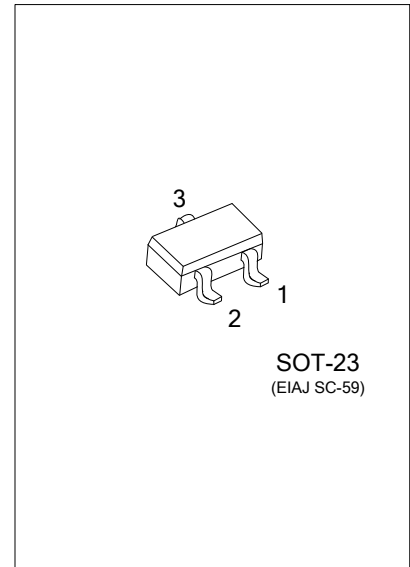
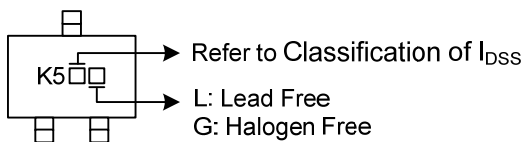
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SK508L-x-AE3-R	2SK508G-x-AE3-R	SOT-23	D	S	G	Tape Reel

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

<p>2SK508L-x-AE3-R</p> <p>(1) Packing Type (2) Package Type (3) Rank (4) Lead Free</p>	<p>(1) R: Tape Reel (2) AE3: SOT-23 (3) x: Refer to Classification of I_{DSS} (4) G: Halogen Free, L: Lead Free</p>
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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 1)	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 1)	$ 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: 1. 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

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