

JUNCTION FIELD EFFECT TRANSISTOR 2SK508

HIGH FREQUENCY AMPLIFIER N-CHANNEL SILICON JUNCTION FIELD EFFECT TRANSISTOR

<R> DESCRIPTION

The 2SK508 is low input capacitance and High forward transfer admittance, it is suitable for AM tuner, wireless installation and cordless telephone.

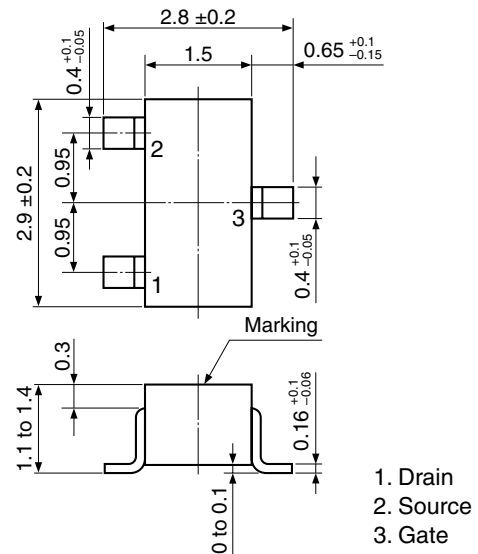
<R> FEATURES

- Low input capacitance
 $C_{iss} = 4.8 \text{ pF TYP. (} V_{DS} = 5.0 \text{ V, } I_D = 10 \text{ mA, } f = 1.0 \text{ MHz)}$
- High forward transfer admittance
 $|y_{fs}|_2 = 26 \text{ mS TYP. (} V_{DS} = 5.0 \text{ V, } V_{GS} = 0 \text{ V, } f = 1.0 \text{ kHz)}$

<R> ORDERING INFORMATION

PART NUMBER	PACKAGE
2SK508	SC-59 (Mini Mold)

<R> PACKAGE DRAWING (Unit: mm)



ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$)

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
Total Power Dissipation	P_T	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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ELECTRICAL CHARACTERISTICS (T_A = 25°C)

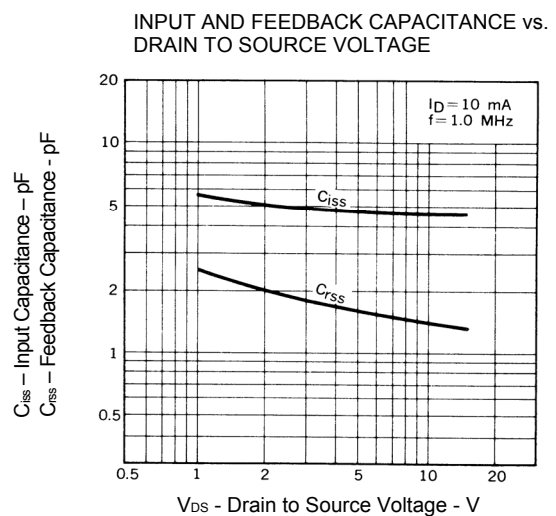
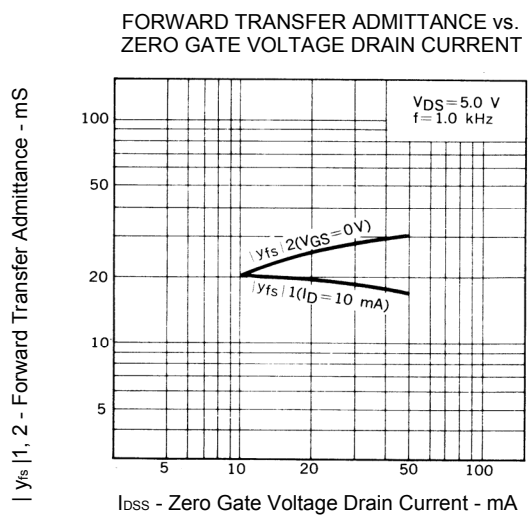
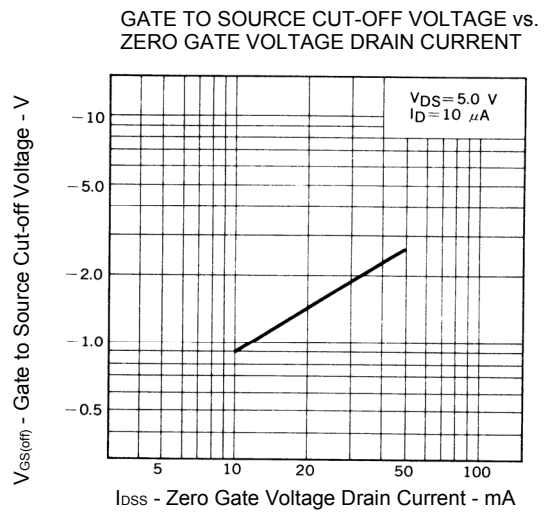
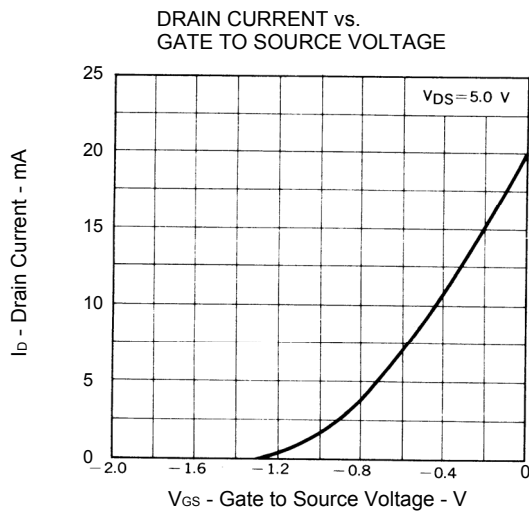
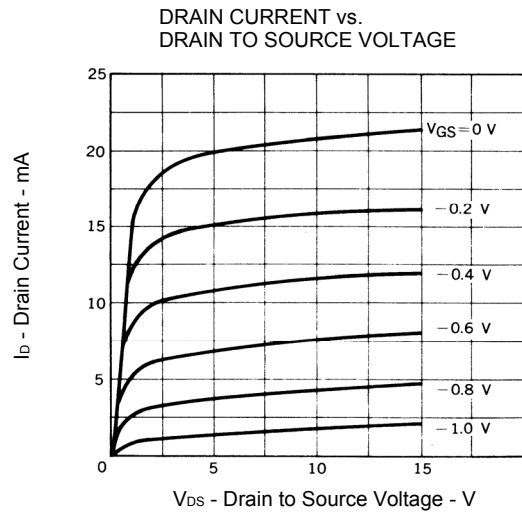
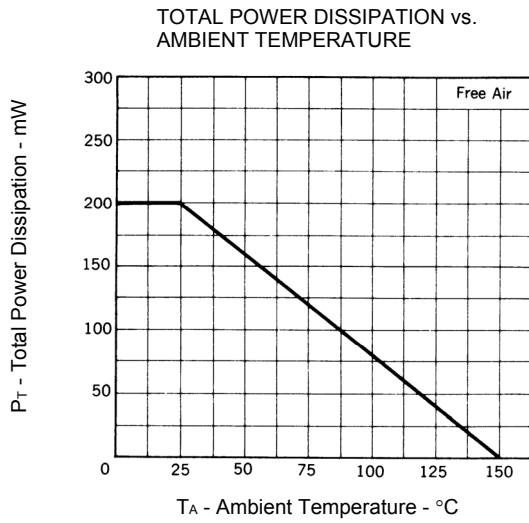
CHARACTERISTICS	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Gate Cut-off Current	I _{GSS}	V _{GS} = -10 V, V _{DS} = 0 V			-1.0	nA
Zero Gate Voltage Drain Current ^{Note}	I _{DSS}	V _{DS} = 5.0 V, V _{GS} = 0 V	10	20	50	mA
Gate to Source Cut-off Voltage	V _{GS(off)}	V _{DS} = 5.0 V, I _D = 10 μA	-0.6	-1.4	-3.5	V
Forward Transfer Admittance ^{Note}	y _{fs} ₁	V _{DS} = 5.0 V, I _D = 10 mA, f = 1.0 kHz	14	19		mS
	y _{fs} ₂	V _{DS} = 5.0 V, V _{GS} = 0 V, f = 1.0 kHz	14	26		mS
Input Capacitance	C _{iss}	V _{DS} = 5.0 V, I _D = 10 mA, f = 1.0 MHz		4.8		pF
Feedback Capacitance	C _{rss}	V _{DS} = 5.0 V, I _D = 10 mA, f = 1.0 MHz		1.6		pF

Note Pulsed: PW ≤ 1 ms, Duty Cycle ≤ 1%

I_{DSS} CLASSIFICATION

MARKING	K51	K52	K53
I _{DSS} (mA)	10 to 20	15 to 30	25 to 50

TYPICAL CHARACTERISTICS (T_A = 25°C)



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