

JUNCTION FIELD EFFECT TRANSISTOR

2SK520

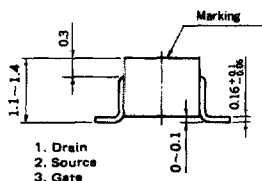
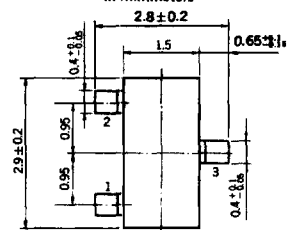
HIGH FREQUENCY AMPLIFIER

N-CHANNEL SILICON JUNCTION FIELD EFFECT TRANSISTOR

MINI MOLD

PACKAGE DIMENSIONS

in millimeters



1. Drain
2. Source
3. Gate

FEATURES

- Good for AM Radio Application
- High $|y_{fs}|$ $|y_{fs}| = 17$ mS TYP.

ABSOLUTE MAXIMUM RATINGS

Maximum Voltages and Currents ($T_a = 25^\circ\text{C}$)

Gate to Drain Voltage	V_{GDO}	-30	V
Gate to Source Voltage	V_{GSO}	-30	V
Drain to Source Voltage ($V_{GS} = -10$ V)	V_{DSX}	30	V
Drain Current (DC)	I_D	50	mA
Gate Current (DC)	I_G	10	mA

Maximum Power Dissipation

Total Power Dissipation at 25°C Ambient Temperature	P_T	200	mW
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Maximum Temperatures

Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Gate Cutoff Current	I_{GSS}			-1.0	nA	$V_{GS} = -20$ V, $V_{DS} = 0$
Zero-Gate Voltage Drain Current	I_{DSS}^*	30	60	110	mA	$V_{DS} = 10$ V, $V_{GS} = 0$
Gate to Source Cutoff Voltage	$V_{GS(off)}$	-1.5	-4.0	-9.0	V	$V_{DS} = 10$ V, $I_D = 10$ μA
Forward Transfer Admittance	$ y_{fs} _1^*$		17		mS	$V_{DS} = 10$ V, $I_D = 30$ mA, $f = 1.0$ kHz
Forward Transfer Admittance	$ y_{fs} _2^*$		22		mS	$V_{DS} = 10$ V, $V_{GS} = 0$, $f = 1.0$ kHz
Input Capacitance	C_{iss}		6.0		pF	$V_{DS} = 10$ V, $I_D = 10$ mA, $f = 1.0$ MHz
Feedback Capacitance	C_{rss}		2.0		pF	$V_{DS} = 10$ V, $I_D = 10$ mA, $f = 1.0$ MHz

* Pulsed PW ≤ 1 ms, Duty Cycle $\leq 1\%$

I_{DSS} Classification

Marking	K41	K42	K43	K44	K45
I_{DSS} (mA)	30 to 50	45 to 65	60 to 80	75 to 95	90 to 110

TYPICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

