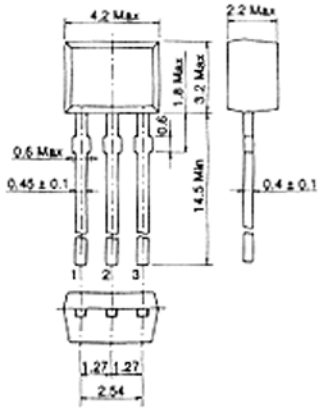
HITACHI

查询"2SK521"供应商

2SK521

SILICON N-CHANNEL JUNCTION FET

VHF AMPLIFIER, MIXER, LOCAL OSCILLATOR



(SPAK)

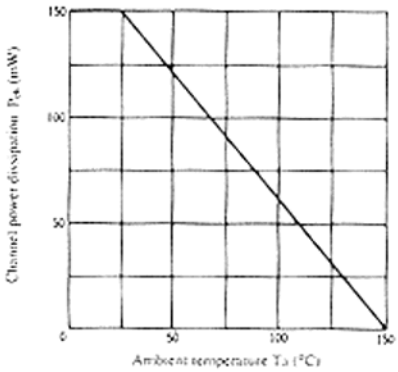
1. Gate
2. Source
3. Drain

(Dimensions in mm)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SK521	Unit
Gate to drain voltage	V_{GDO}	−18	V
Gate current	I_G	10	mA
Drain current	I_D	20	mA
Channel power dissipation	P_{ch}	150	mW
Channel temperature	T_{ch}	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

MAXIMUM CHANNEL DISSIPATION CURVE



■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Gate to drain breakdown voltage	$V_{(BR)GDO}$	$I_G = -100\mu A$, $I_S = 0$	−18	—	—	V
Gate cutoff current	I_{GSS}	$V_{GS} = -0.5V$, $V_{DS} = 0$	—	—	−10	nA
Drain current	I_{DSS}*	$V_{DS} = 10V$, $V_{GS} = 0$	2	—	14	mA
Gate to source cutoff voltage	$V_{GS(off)}$	$V_{DS} = 10V$, $I_D = 10\mu A$	−0.3	—	−5.5	V
Forward transfer admittance	$\lvert y_{fs} \rvert$	$V_{DS} = 10V$, $V_{GS} = 0$, $f = 1kHz$	3	8	—	mS
Input capacitance	C_{iss}	$V_{DS} = 10V$, $V_{GS} = 0$, $f = 1MHz$	—	3	—	pF
Reverse transfer capacitance	C_{rss}		—	0.4	0.6	pF
Power gain	PG	$V_{DD} = 10V$, $R_S = 33\Omega$, $f = 100MHz$	—	18	—	dB
Noise figure	NF		—	2	3.5	dB

* The 2SK521 is grouped by I_{DSS} as follows.

C	D	E
2 to 5	3 to 7	6 to 14

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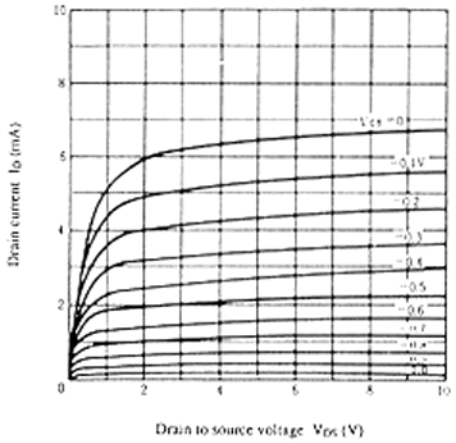
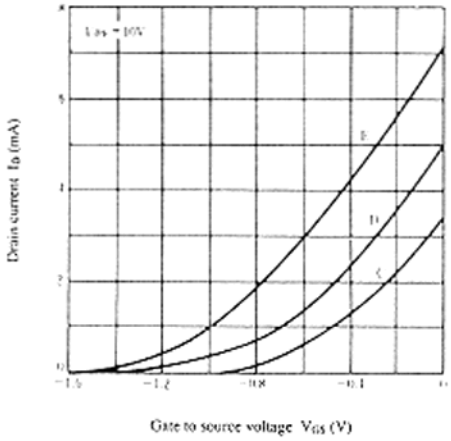
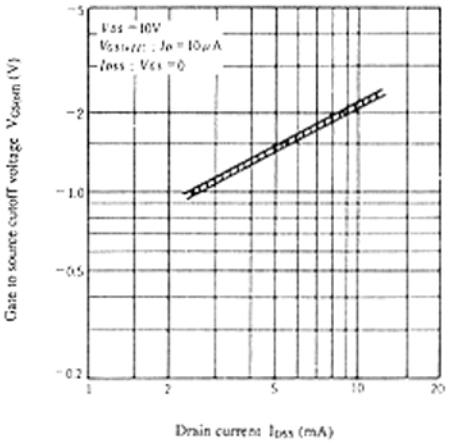
TYPICAL OUTPUT CHARACTERISTICS



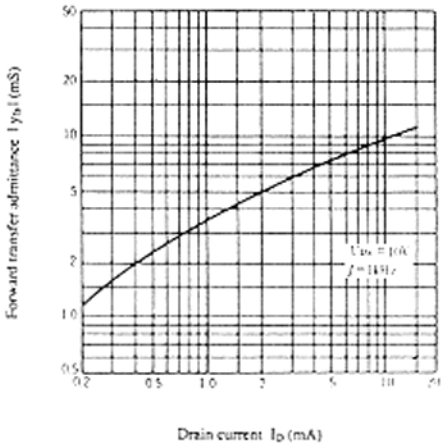
TYPICAL TRANSFER CHARACTERISTICS



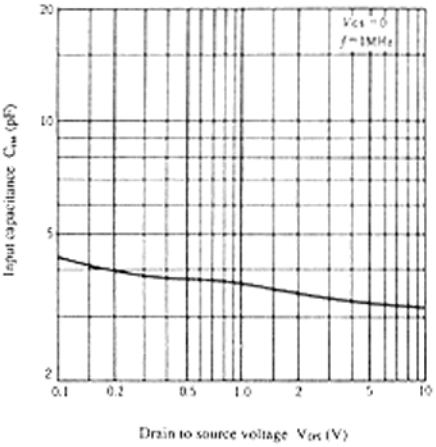
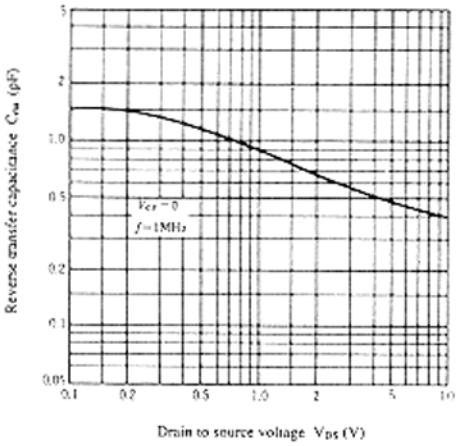
GATE TO SOURCE CUTOFF VOLTAGE VS. DRAIN CURRENT



FORWARD TRANSFER ADMITTANCE VS. DRAIN CURRENT



INPUT CAPACITANCE VS. DRAIN TO SOURCE VOLTAGE



REVERSE TRANSFER CAPACITANCE VS. DRAIN TO SOURCE VOLTAGE