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# 2SK322

Silicon N-Channel Junction FET

# HITACHI

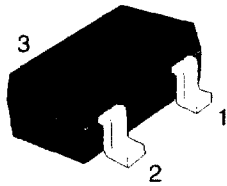
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## Application

HF wide band amplifier

## Outline

MPAK



1. Drain
2. Source
3. Gate

### Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Gate to drain voltage	$V_{GDO}$	-15	V
Gate to source voltage	$V_{GSO}$	-15	V
Drain current	$I_D$	50	mA
Gate current	$I_G$	5	mA
Channel power dissipation	Pch	150	mW
Channel temperature	Tch	150	°C
Storage temperature	Tstg	-55 to +150	°C

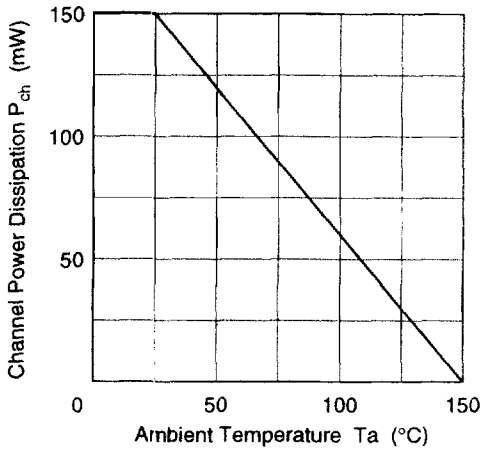
### Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Gate to drain breakdown voltage	$V_{(BR)GDO}$	-15	—	—	V	$I_G = -100 \mu A$
Gate to source breakdown voltage	$V_{(BR)GSO}$	-15	—	—	V	$I_G = -100 \mu A$
Gate cutoff current	$I_{GSS}$	—	—	-10	nA	$V_{GS} = -7 V, V_{DS} = 0$
Drain current	$I_{DSS}^{*1}$	5	—	50	mA	$V_{DS} = 5 V, V_{GS} = 0$ (pulse)
Gate to source cutoff voltage	$V_{GS(off)}$	—	—	-3.0	V	$V_{DS} = 5 V, I_D = 100 \mu A$
Forward transfer admittance	$ y_{fs} $	25	45	—	mS	$V_{DS} = 5 V, V_{GS} = 0, f = 1 \text{ kHz}$

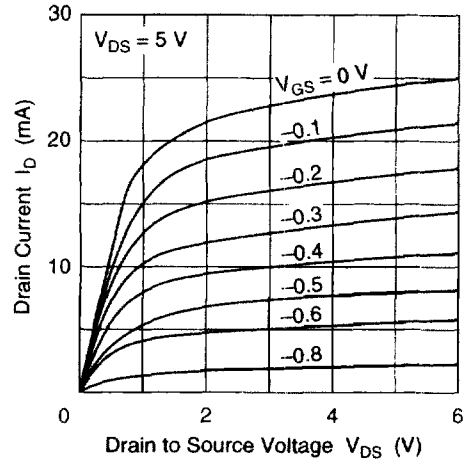
Note: 1. The 2SK322 is grouped by  $I_{DSS}$  as follows.

Grade	P	Q	R	S	T
Mark	WP	WQ	WR	WS	WT
$I_{DSS}$	5 to 16	14 to 24	20 to 32	28 to 42	36 to 50

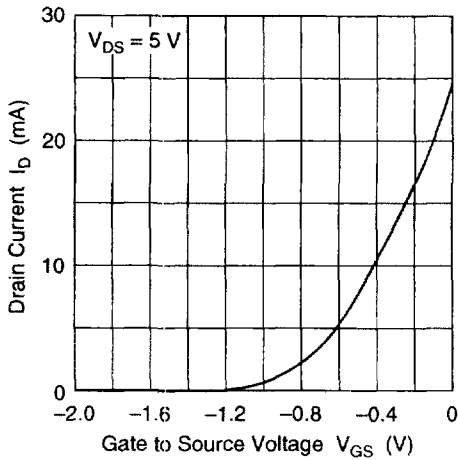
Maximum Channel Power Dissipation Curve



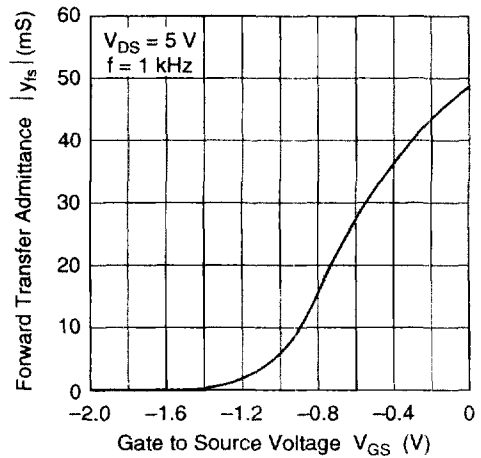
Typical Output Characteristics



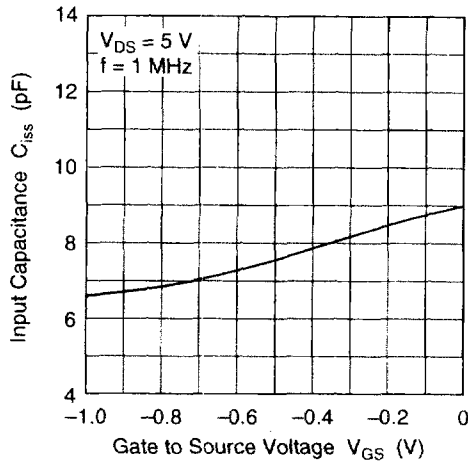
Typical Transfer Characteristics



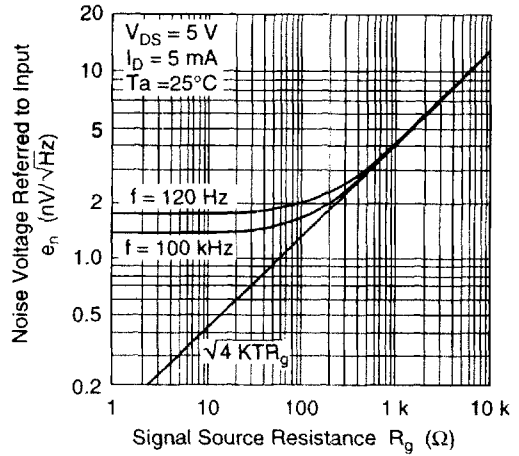
Forward Transfer Admittance vs. Gate to Source Voltage



Input Capacitance vs. Gate to Source Voltage



Noise Voltage Referred to Input vs. Signal Source Resistance



Noise Voltage Referred to Input vs. Frequency

