2SK322

Silicon N-Channel Junction FET

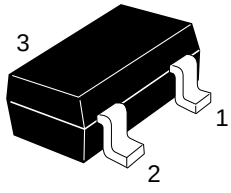
HITACHI

Application

HF wide band amplifier

Outline

MPAK



1. Drain
2. Source
3. Gate

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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

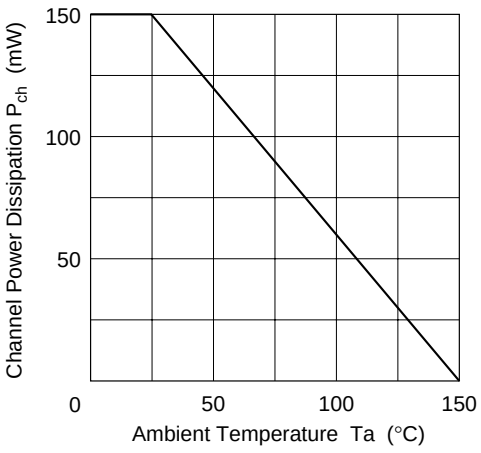
Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Gate to drain breakdown voltage	$V_{(BR)GDO}$	–15	—	—	V	I_G = –100 µA
Gate to source breakdown voltage	$V_{(BR)GSO}$	–15	—	—	V	I_G = –100 µA
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 µA
Forward transfer admittance	$\|y_{fs}\|$	25	45	—	mS	V_{DS} = 5 V, V_{GS} = 0, f = 1 kHz

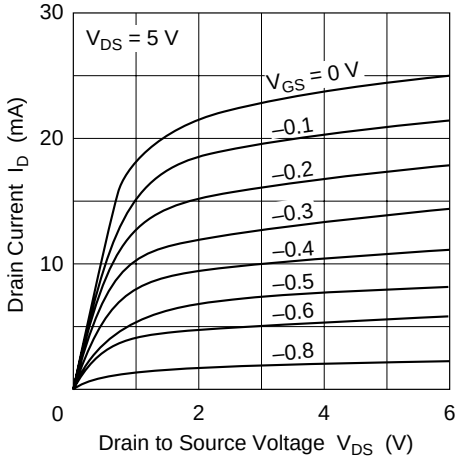
Note: 1. The 2SK322 is grouped by I_{DSS} as follows.

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

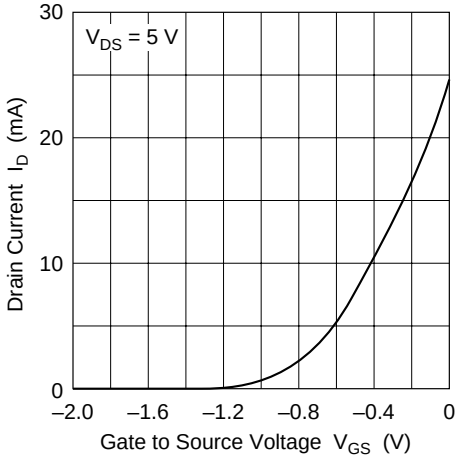
Maximum Channel Power Dissipation Curve



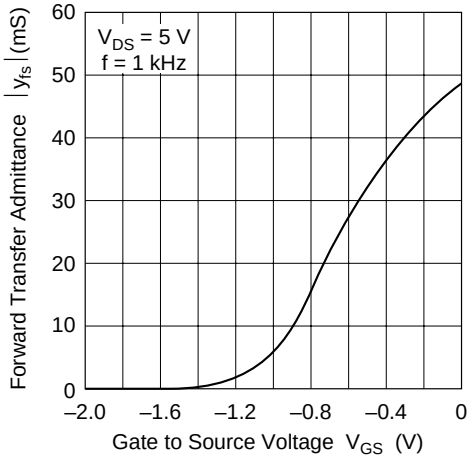
Typical Output Characteristics



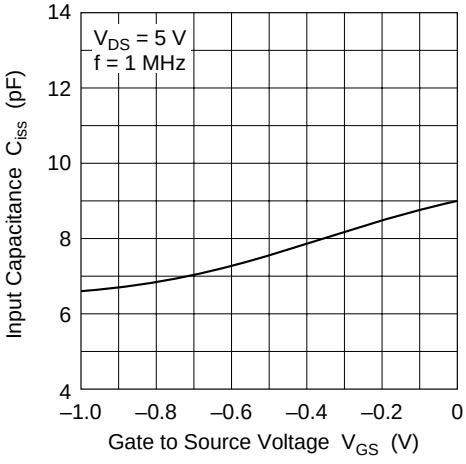
Typical Transfer Characteristics



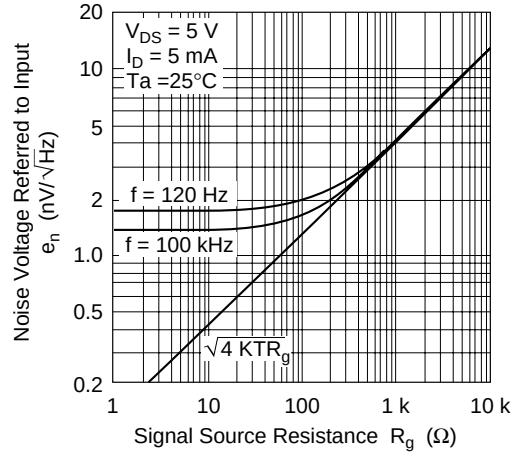
Forward Transfer Admittance vs. Gate to Source Voltage



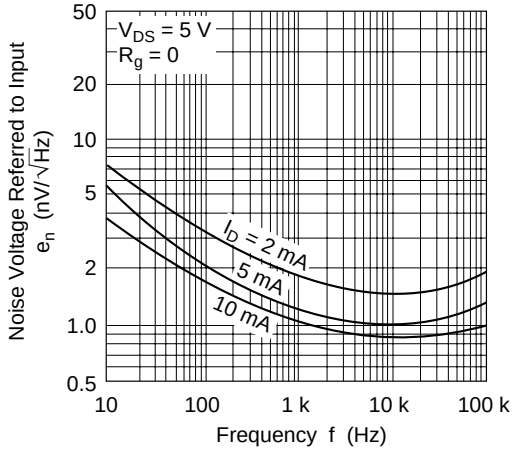
Input Capacitance vs. Gate to Source Voltage



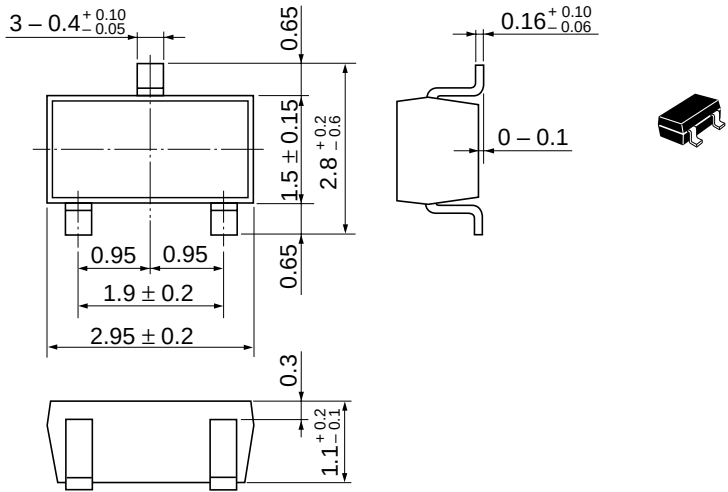
Noise Voltage Referred to Input vs. Signal Source Resistance



Noise Voltage Referred to Input vs. Frequency



Unit: mm



Hitachi Code	MPAK
JEDEC	—
EIAJ	Conforms
Weight (reference value)	0.011 g

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