

2SK2922

Silicon N Channel MOS FET
UHF Power Amplifier

HITACHI

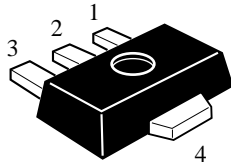
ADE-208-675A (Z)
2nd. Edition
Mar. 2001

Features

- High power output, High gain, High efficiency
PG = 8.0dB, Pout = 31dBm, $\eta_D = 57\%$ min. (f = 836.5MHz)
- Compact package capable of surface mounting

Outline

UPAK



1. Gate
2. Source
3. Drain
4. Source

This Device is sensitive to Electro Static Discharge.
An Adequate handling procedure is requested.

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Item	Symbol	Ratings	Unit
Drain to source voltage	V_{DSS}	10	V
Gate to source voltage	V_{GSS}	± 6	V
Drain current	I_{D}	0.7	A
Drain peak current	$I_{\text{D(pulse)}}$ ^{Note1}	1.4	A
Channel dissipation	P_{ch} ^{Note2}	3	W
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-45 to +150	$^\circ\text{C}$

Note: 1. $PW \leq 10\text{ms}$, duty cycle $\leq 50\%$

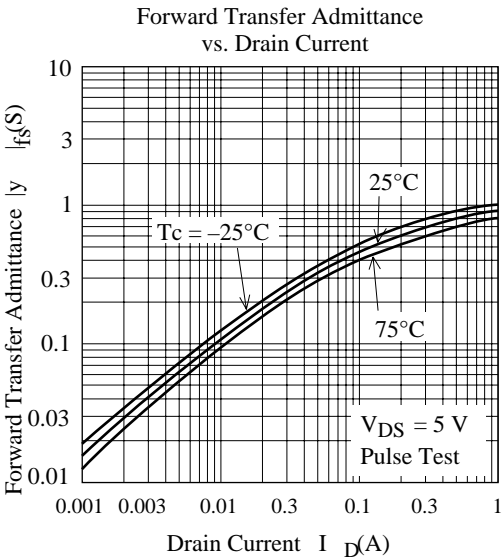
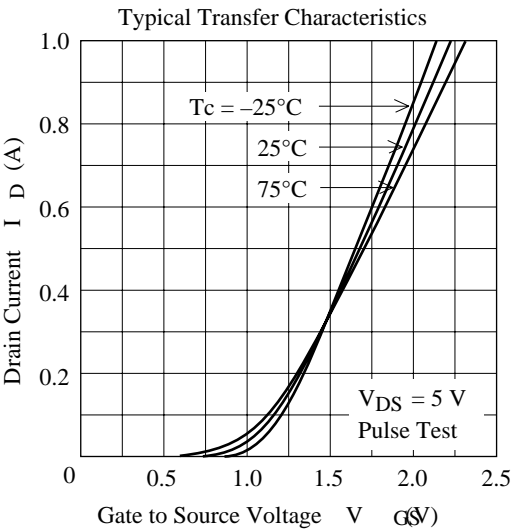
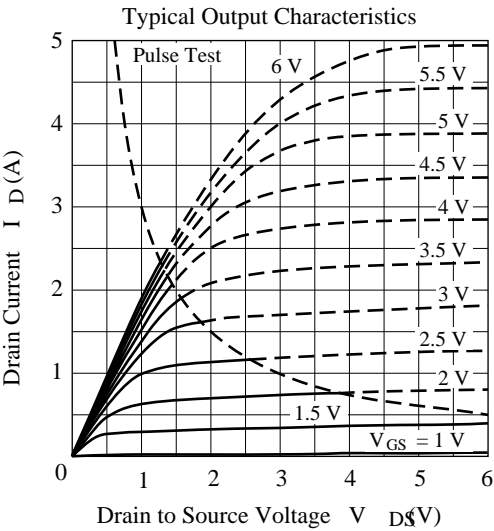
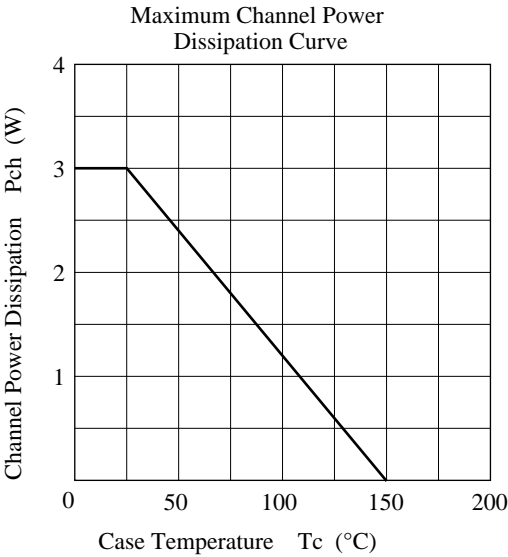
2. Value at $T_c = 25^\circ\text{C}$

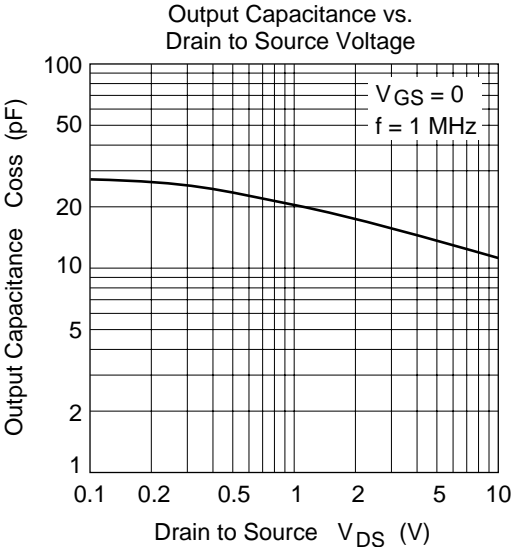
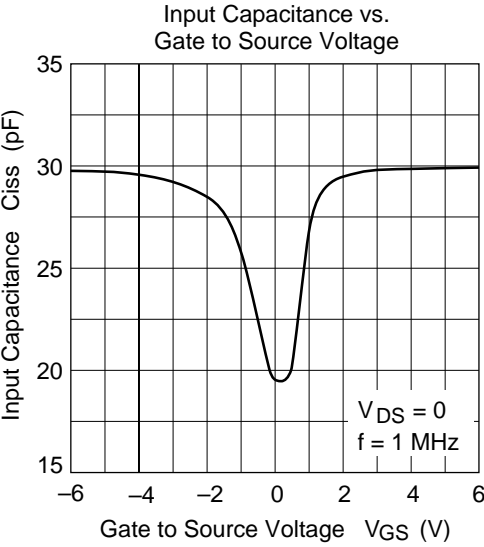
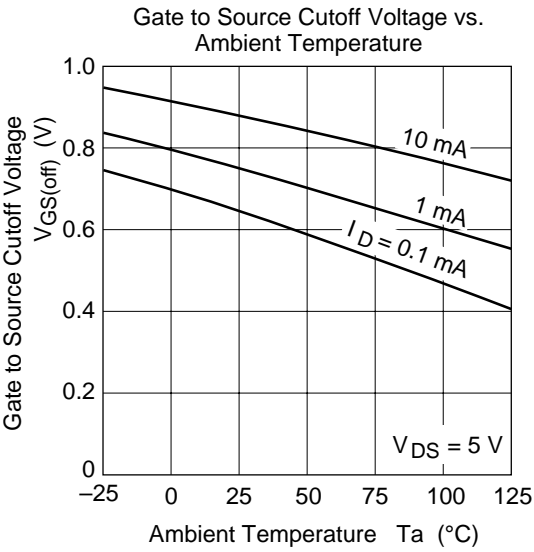
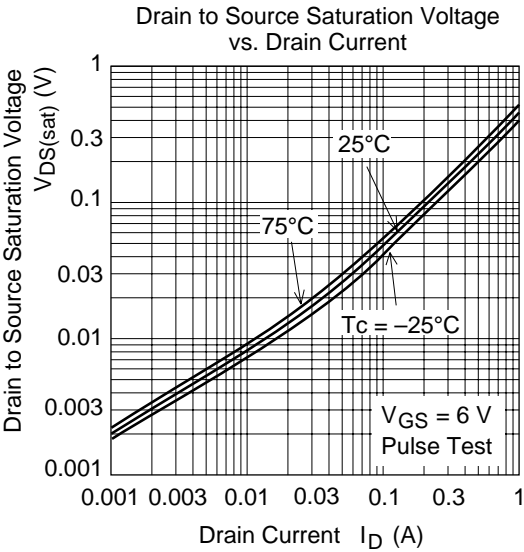
Electrical Characteristics ($T_a = 25^\circ\text{C}$)

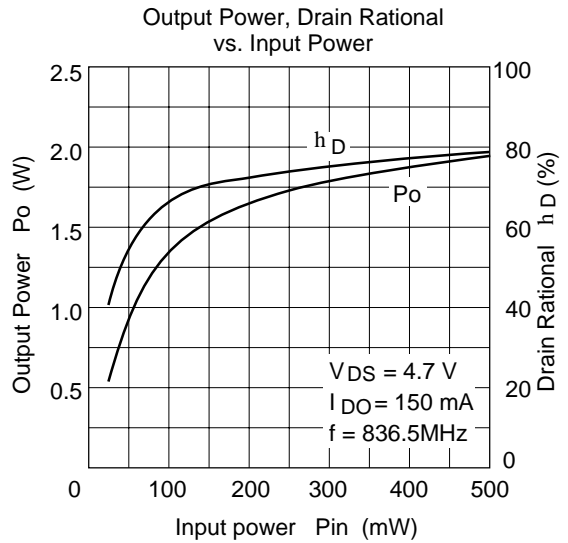
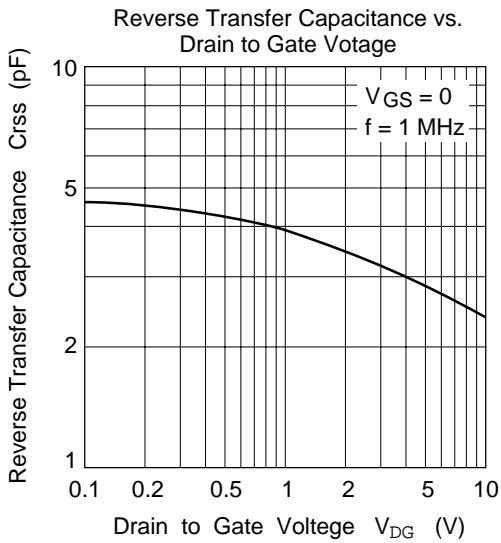
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Zero gate voltage drain current	I_{DSS}	—	—	100	μA	$V_{\text{DS}} = 10\text{ V}$, $V_{\text{GS}} = 0$
Gate to source leak current	I_{GSS}	—	—	± 5.0	μA	$V_{\text{GS}} = \pm 6\text{ V}$, $V_{\text{DS}} = 0$
Gate to source cutoff voltage	$V_{\text{GS(off)}}$	0.4	—	1.2	V	$I_{\text{D}} = 3\text{ mA}$, $V_{\text{DS}} = 5\text{ V}$
Input capacitance	C_{iss}	—	27	—	pF	$V_{\text{GS}} = 2\text{ V}$, $V_{\text{DS}} = 0$, $f = 1\text{ MHz}$
Output capacitance	C_{oss}	—	13	—	pF	$V_{\text{DS}} = 5\text{ V}$, $V_{\text{GS}} = 0$, $f = 1\text{ MHz}$
Output Power	P_{out}	31	—	—	dBm	$V_{\text{DS}} = 4.7\text{ V}$, $f = 836.5\text{ MHz}$ $P_{\text{in}} = 23\text{ dBm}$
Drain Rational	η_{D}	57	—	—	%	$V_{\text{DS}} = 4.7\text{ V}$, $f = 836.5\text{ MHz}$ $P_{\text{in}} = 23\text{ dBm}$

Note: 1. Marking is "HX".

Main Characteristics

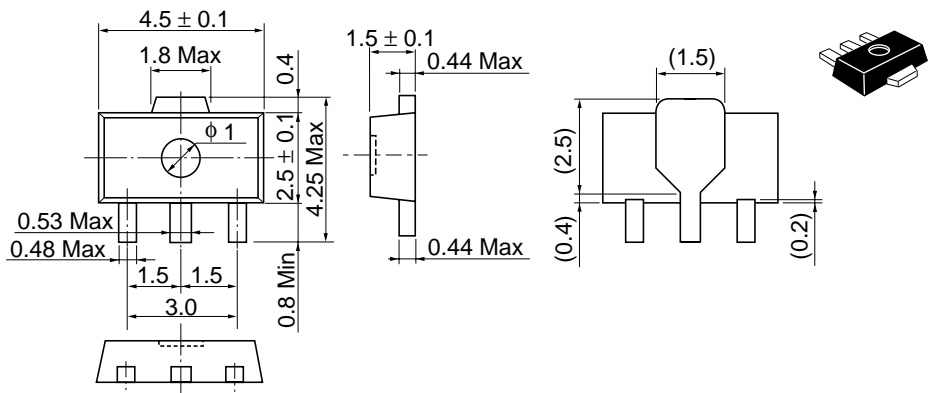






Package Dimensions

As of January, 2001
Unit: mm



Hitachi Code	UPAK
JEDEC	—
EIAJ	Conforms
Mass (reference value)	0.050 g

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