

2SK3391

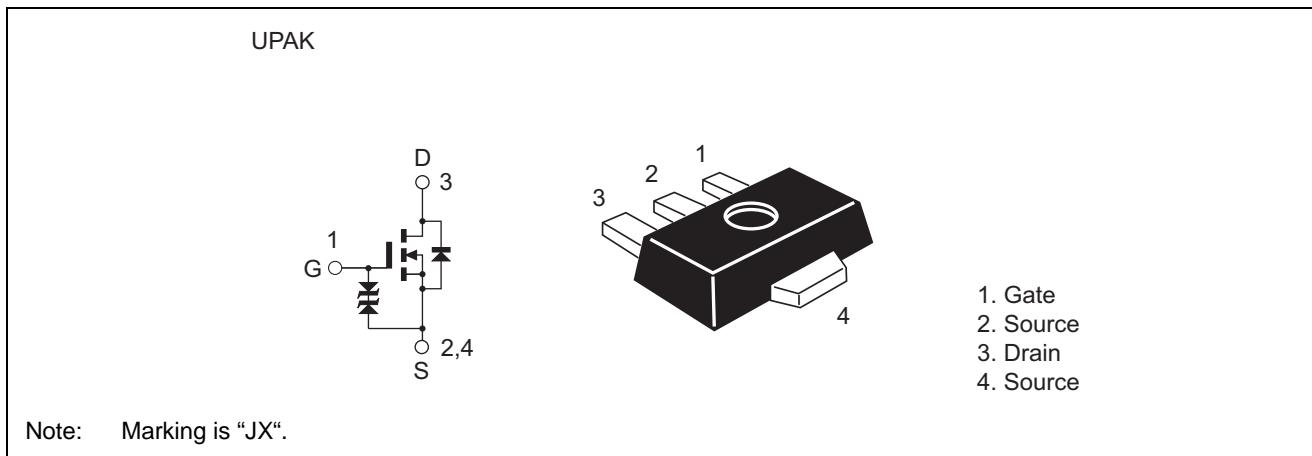
Silicon N-Channel MOS FET UHF Power Amplifier

REJ03G0209-0200Z
(Previous ADE-208-847 (Z))
Rev.2.00
Apr.14.2004

Features

- High power output, High gain, High efficiency
 $PG = 18$ dB, $P_{out} = 1.6$ W, $\eta_{add} = 58\%$ min. ($f = 836$ MHz)
- Compact package capable of surface mounting

Outline



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}	17	V
Gate to source voltage	V_{GSS}	± 10	V
Drain current	I_D	0.3	A
Drain peak current	$I_{D(\text{pulse})}$ ^{Note1}	0.75	A
Channel dissipation	P_{ch} ^{Note2}	5	W
Channel temperature	T_{ch}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-45 to +150	$^\circ\text{C}$

Notes: 1. $PW < 1\text{ sec}$, $T_{ch} < 150^\circ\text{C}$

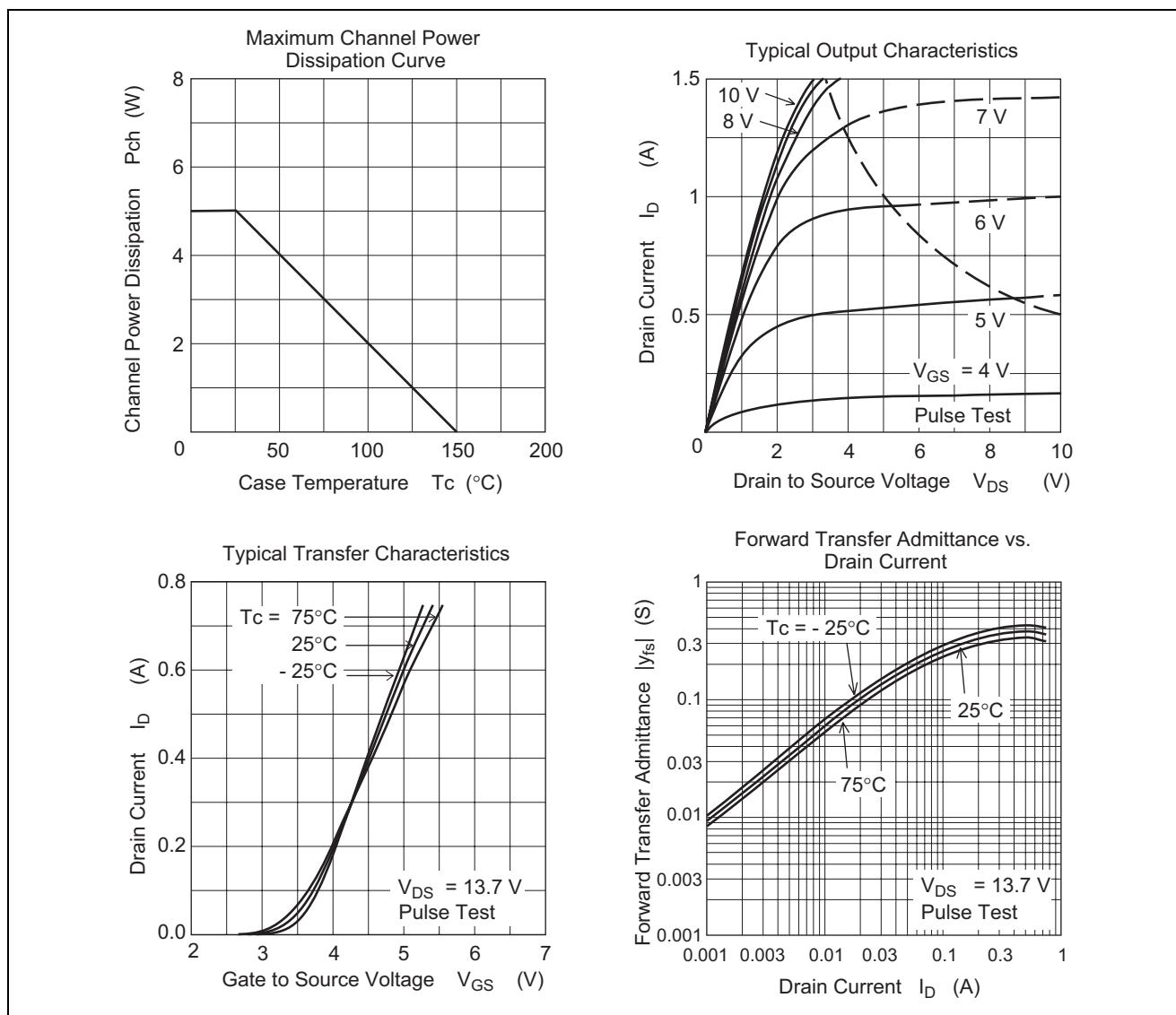
2. Value at $T_c = 25^\circ\text{C}$

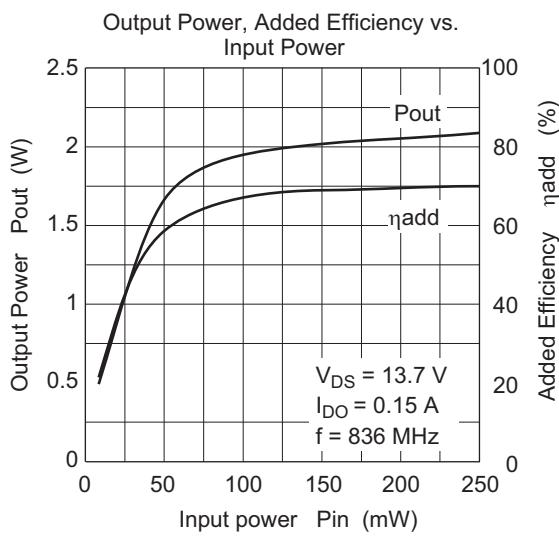
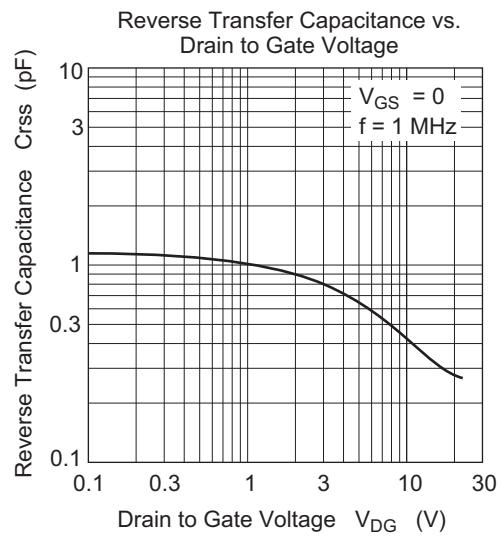
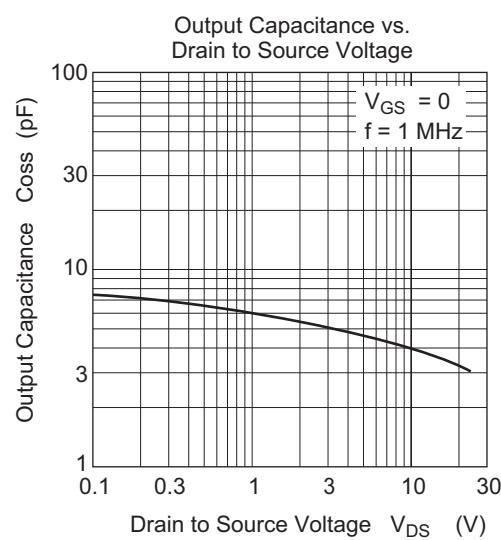
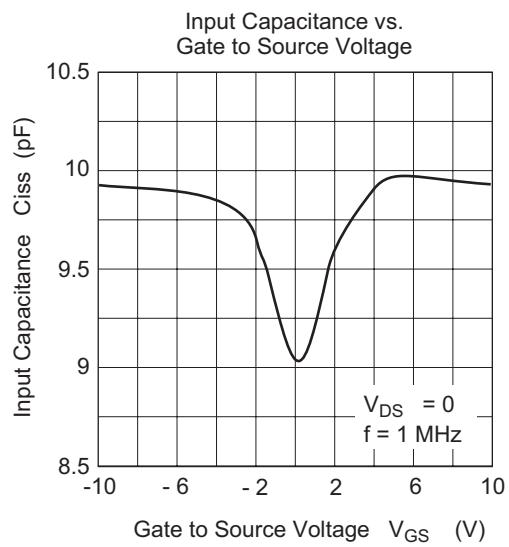
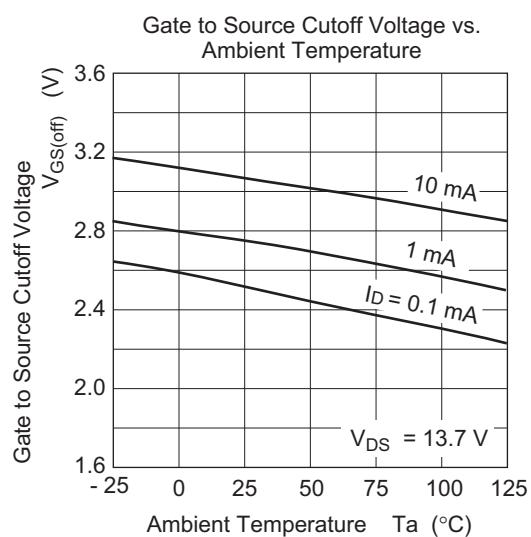
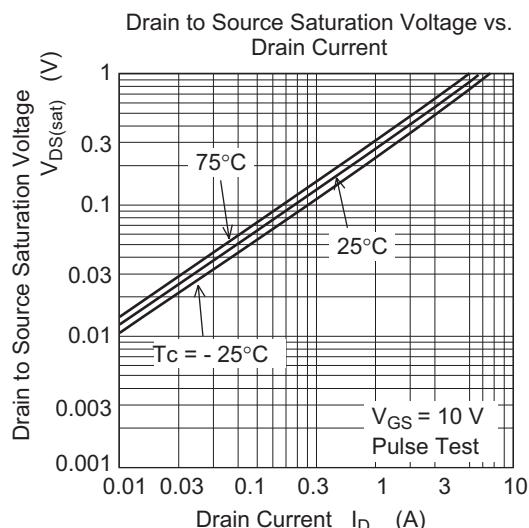
Electrical Characteristics

(Ta = 25°C)

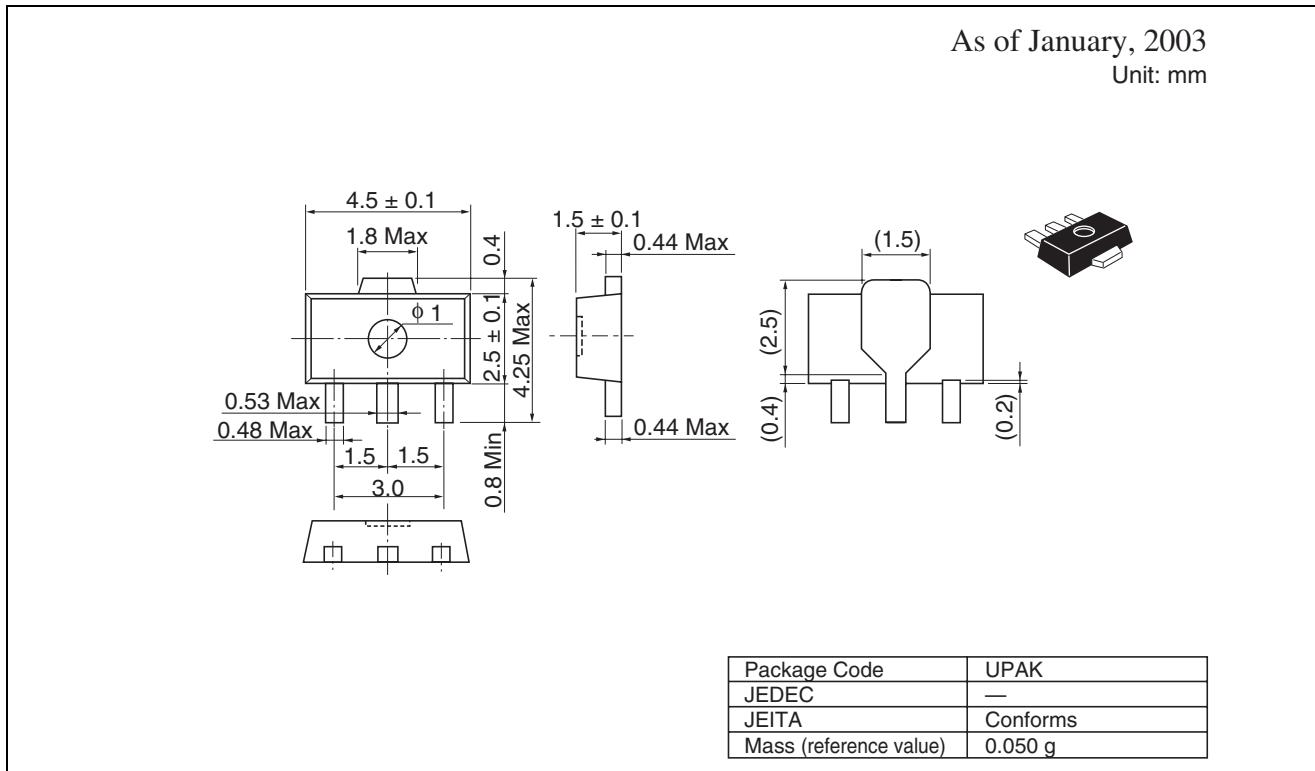
Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Zero gate voltage drain current	I _{DSS}	—	—	10	μA	V _{DS} = 13.7 V, V _{GS} = 0
Gate to source leak current	I _{GSS}	—	—	±5	μA	V _{GS} = ±10 V, V _{DS} = 0
Gate to source cutoff voltage	V _{GS(off)}	2.3	—	3.1	V	I _D = 1 mA, V _{DS} = 13.7 V
Input capacitance	C _{iss}	—	10	—	pF	V _{GS} = 5 V, V _{DS} = 0, f = 1 MHz
Output capacitance	C _{oss}	—	3.5	—	pF	V _{DS} = 13.7 V, V _{GS} = 0, f = 1 MHz
Output Power	P _{out}	1.6	—	—	W	V _{DS} = 13.7 V, I _{DO} = 0.15 A f = 836 MHz, Pin = 25.1 mW
Added Efficiency	η _{add}	58	—	—	%	V _{DS} = 13.7 V, I _{DO} = 0.15 A f = 836 MHz, Pin = 25.1 mW

Main Characteristics





Package Dimensions



Ordering Information

Part Name	Quantity	Shipping Container
2SK3391JX	1000	Taping

Note: For some grades, production may be terminated. Please contact the Renesas sales office to check the state of production before ordering the product.

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