

2SK3391

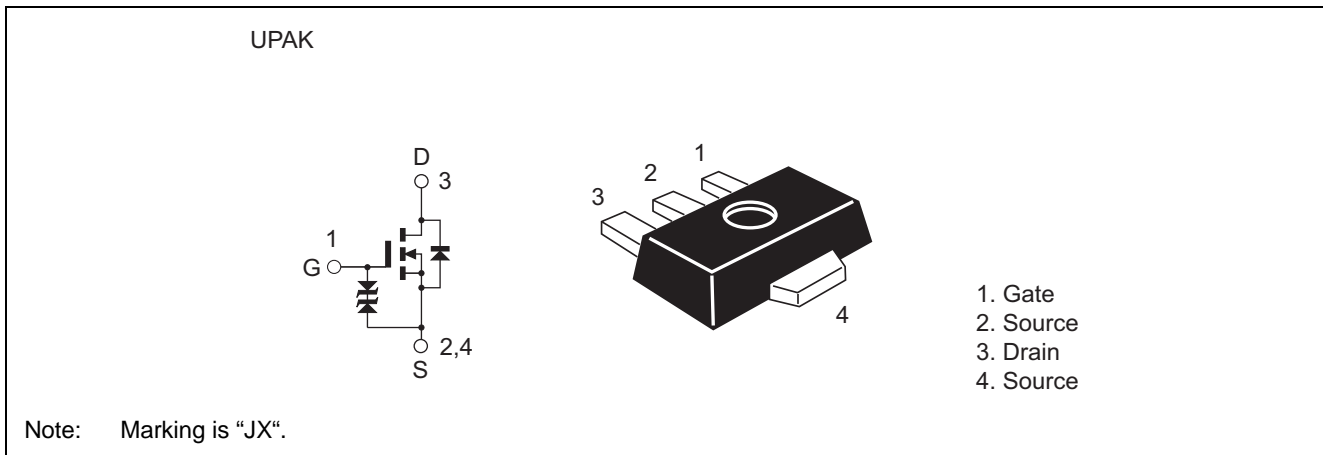
Silicon N-Channel MOS FET UHF Power Amplifier

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

Features

- High power output, High gain, High efficiency
PG = 18 dB, Pout = 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

(Ta = 25°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	$I_{D(pulse)}$ ^{Note1}	0.75	A
Channel dissipation	Pch ^{Note2}	5	W
Channel temperature	Tch	150	°C
Storage temperature	Tstg	-45 to +150	°C

Notes: 1. PW < 1sec, Tch < 150°C
2. Value at Tc = 25°C

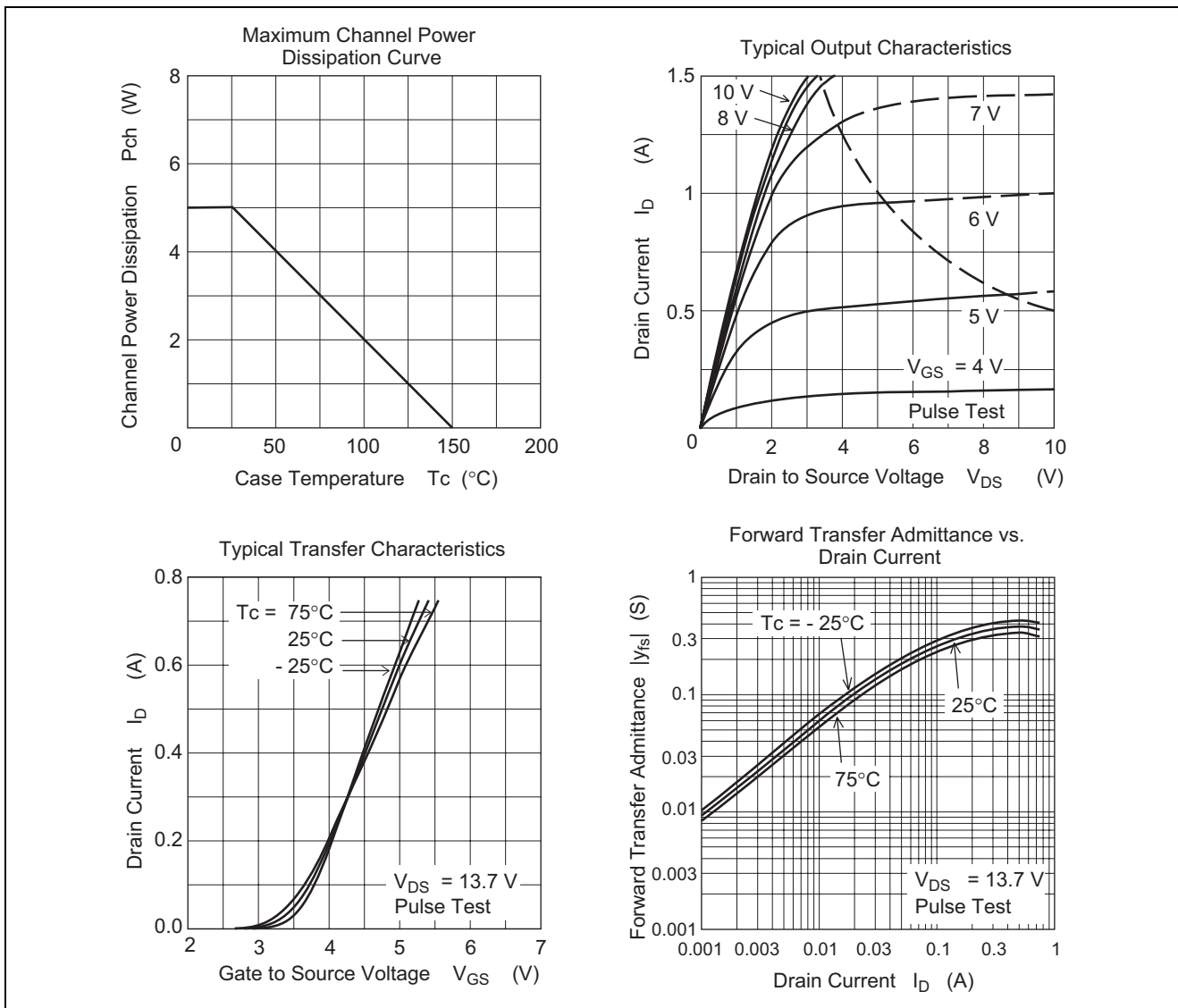
Electrical Characteristics

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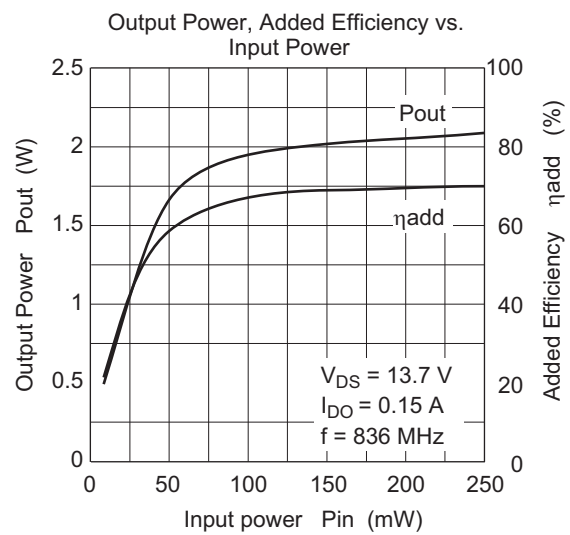
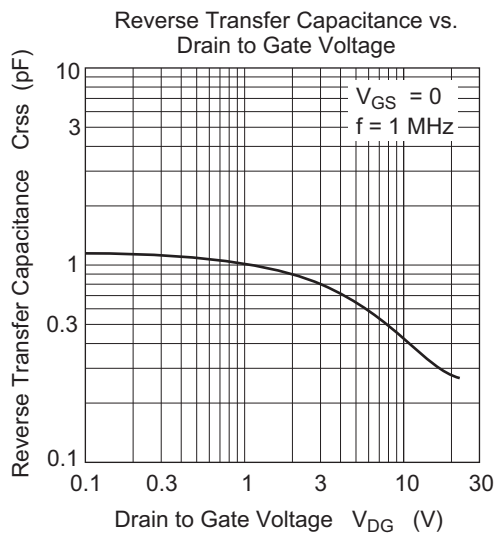
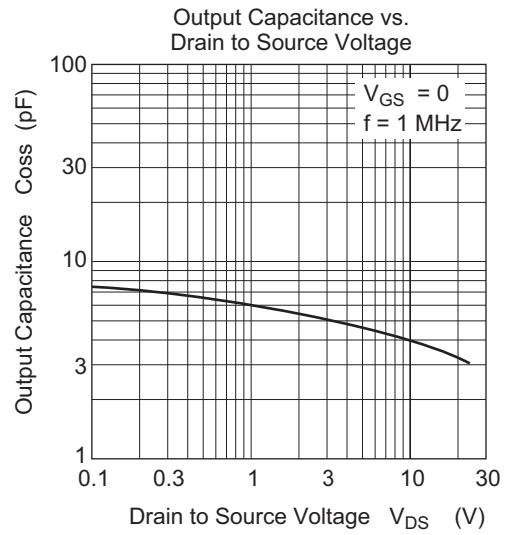
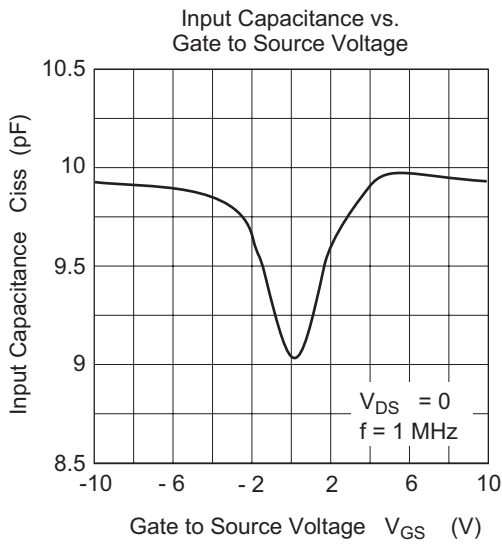
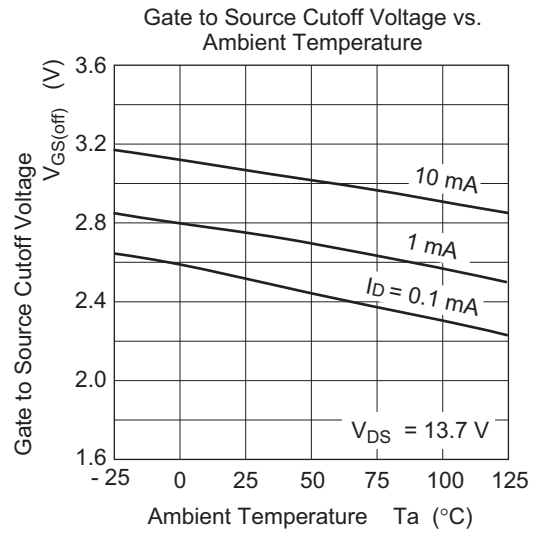
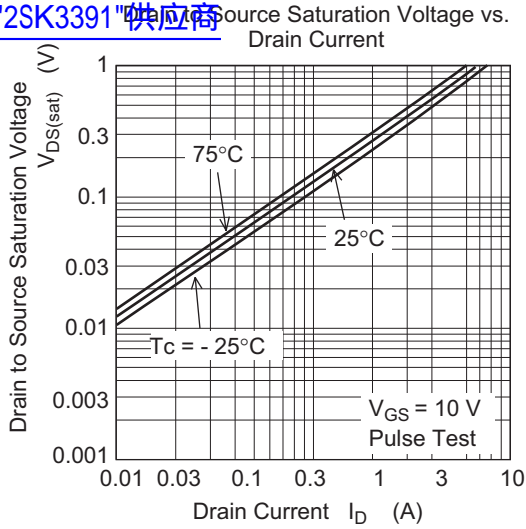
($T_a = 25^\circ\text{C}$)

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Zero gate voltage drain current	I_{DSS}	—	—	10	μA	$V_{DS} = 13.7\text{ V}, V_{GS} = 0$
Gate to source leak current	I_{GSS}	—	—	± 5	μA	$V_{GS} = \pm 10\text{ V}, V_{DS} = 0$
Gate to source cutoff voltage	$V_{GS(off)}$	2.3	—	3.1	V	$I_D = 1\text{ mA}, V_{DS} = 13.7\text{ V}$
Input capacitance	C_{iss}	—	10	—	pF	$V_{GS} = 5\text{ V}, V_{DS} = 0, f = 1\text{ MHz}$
Output capacitance	C_{oss}	—	3.5	—	pF	$V_{DS} = 13.7\text{ V}, V_{GS} = 0, f = 1\text{ MHz}$
Output Power	P_{out}	1.6	—	—	W	$V_{DS} = 13.7\text{ V}, I_{D0} = 0.15\text{ A}$ $f = 836\text{ MHz}, P_{in} = 25.1\text{ mW}$
Added Efficiency	η_{add}	58	—	—	%	$V_{DS} = 13.7\text{ V}, I_{D0} = 0.15\text{ A}$ $f = 836\text{ MHz}, P_{in} = 25.1\text{ mW}$

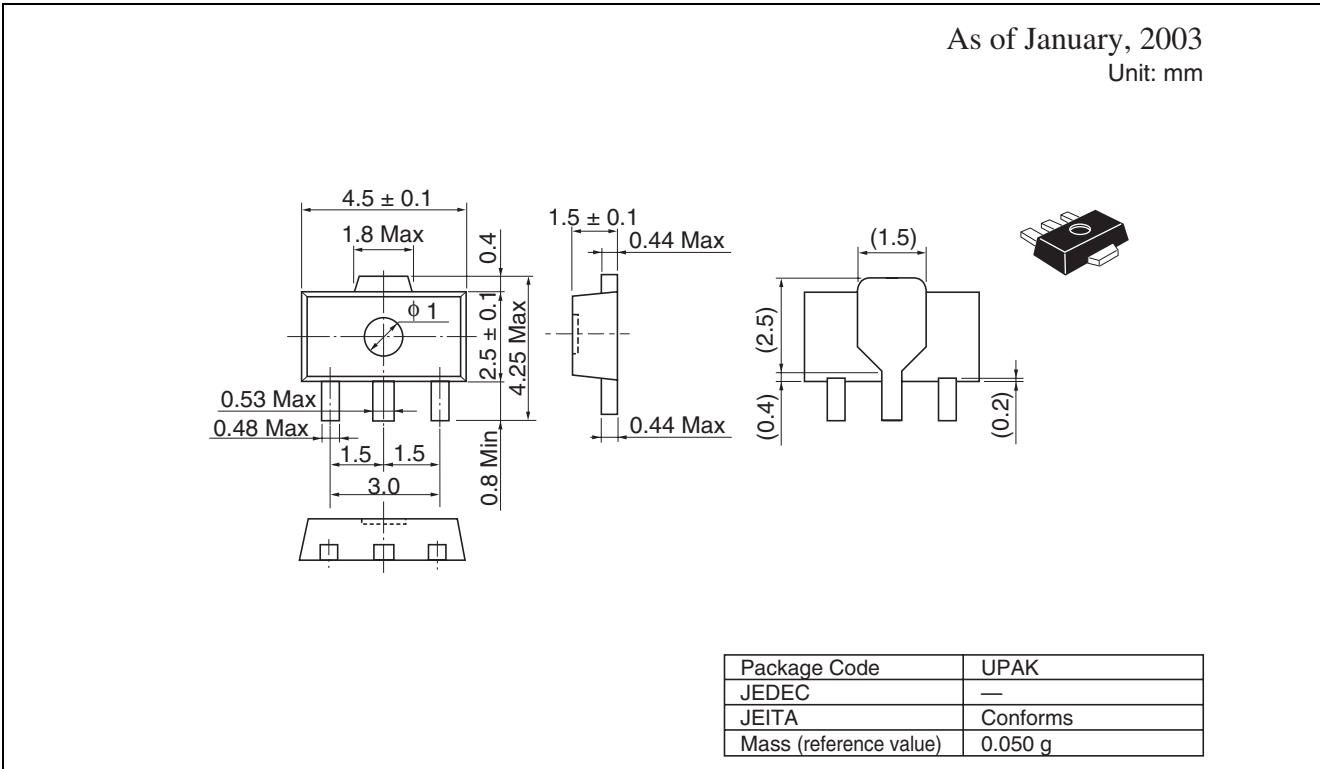
Main Characteristics



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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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