

# 2SK3391

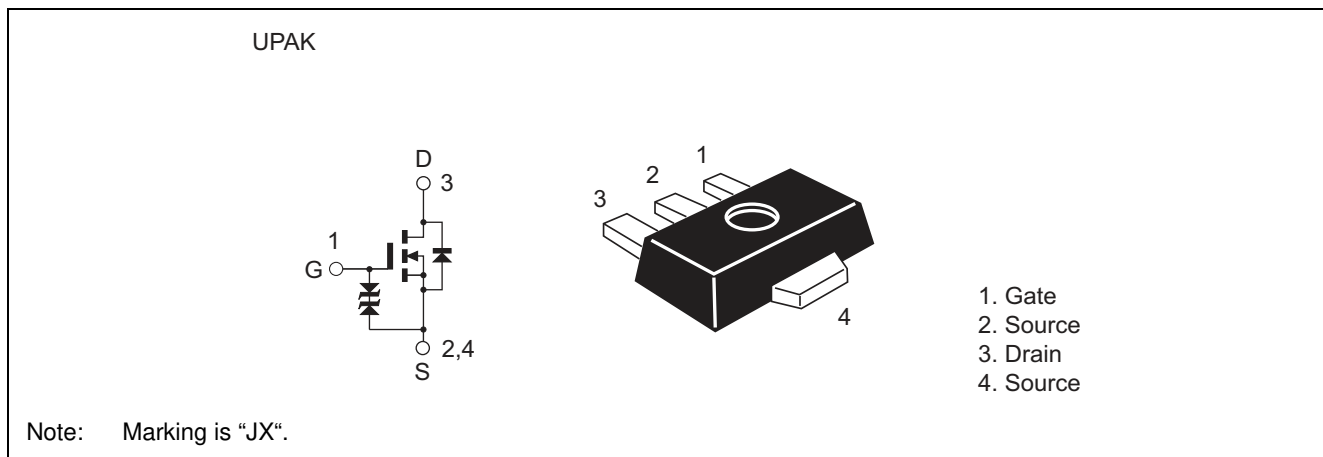
## Silicon N-Channel MOS FET UHF Power Amplifier

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	$V_{GSS}$	$\pm 10$	V
Drain current	$I_D$	0.3	A
Drain peak current	$I_{D(pulse)}$ <sup>Note1</sup>	0.75	A
Channel dissipation	Pch <sup>Note2</sup>	5	W
Channel temperature	Tch	150	°C
Storage temperature	Tstg	-45 to +150	°C

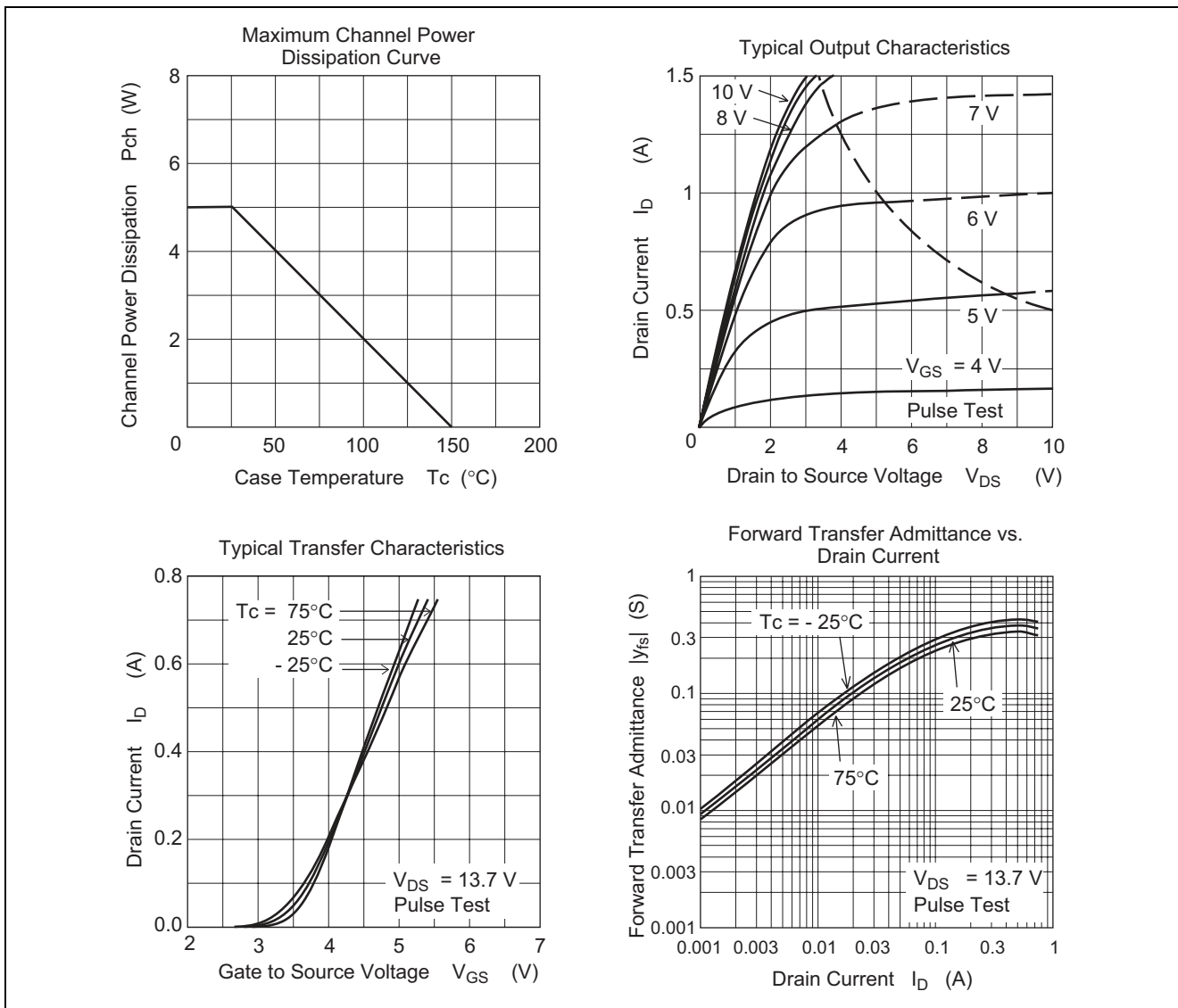
Notes: 1. PW < 1sec, Tch < 150°C  
2. Value at Tc = 25°C

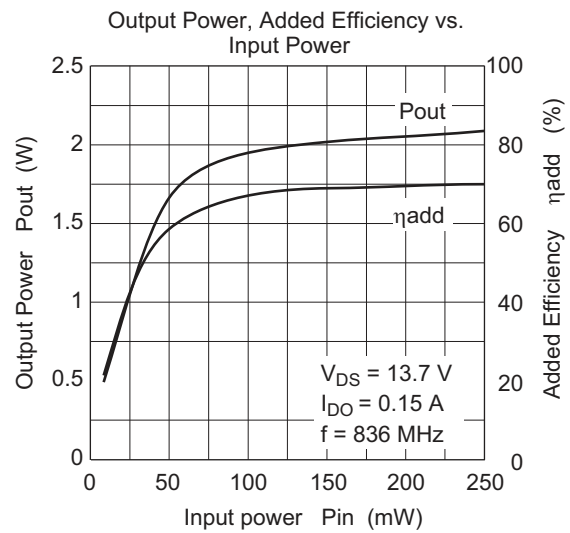
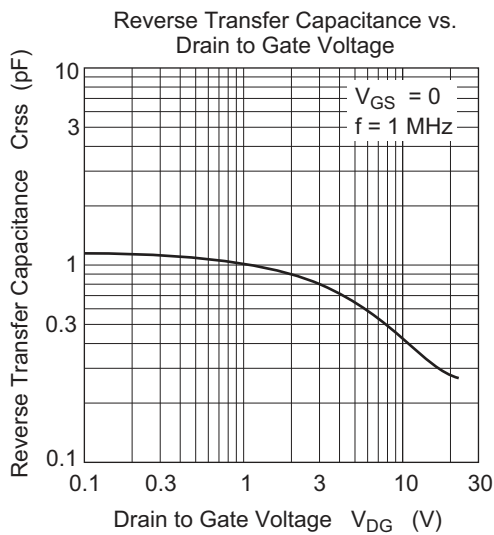
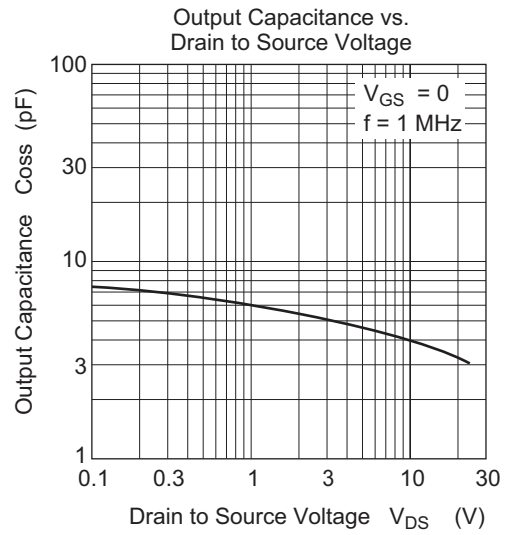
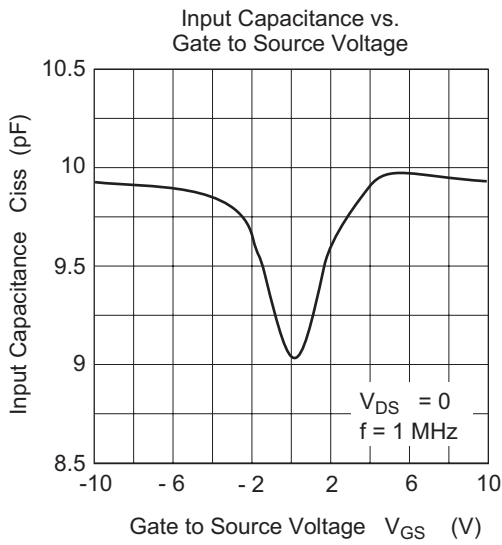
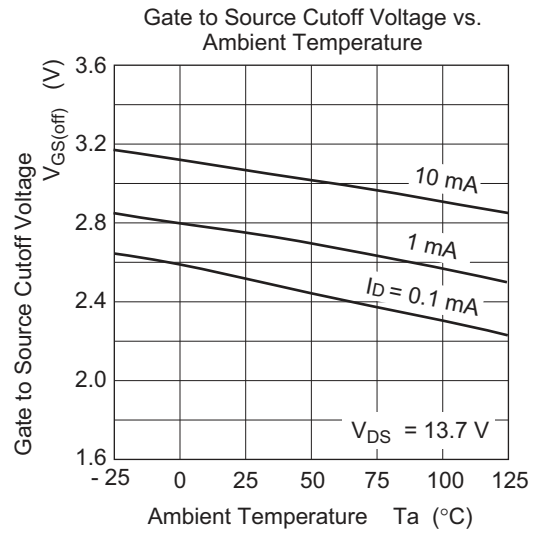
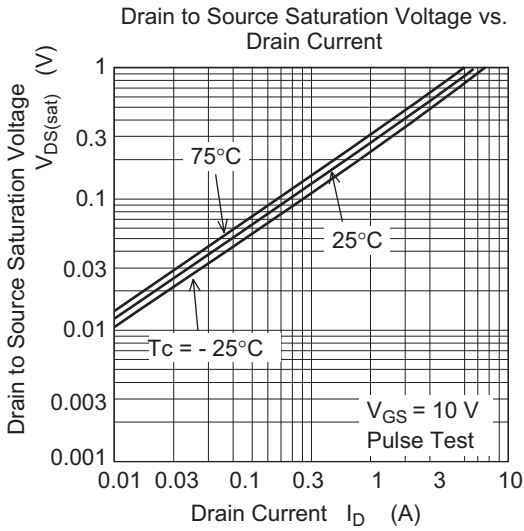
Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Conditions
Zero gate voltage drain current	$I_{DSS}$	—	—	10	$\infty$ A	$V_{DS} = 13.7$ V, $V_{GS} = 0$
Gate to source leak current	$I_{GSS}$	—	—	$\pm 5$	$\infty$ A	$V_{GS} = \pm 10$ 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, $I_{D0} = 0.15$ A $f = 836$ MHz, $P_{in} = 25.1$ mW
Added Efficiency	$\eta_{add}$	58	—	—	%	$V_{DS} = 13.7$ V, $I_{D0} = 0.15$ A $f = 836$ MHz, $P_{in} = 25.1$ mW

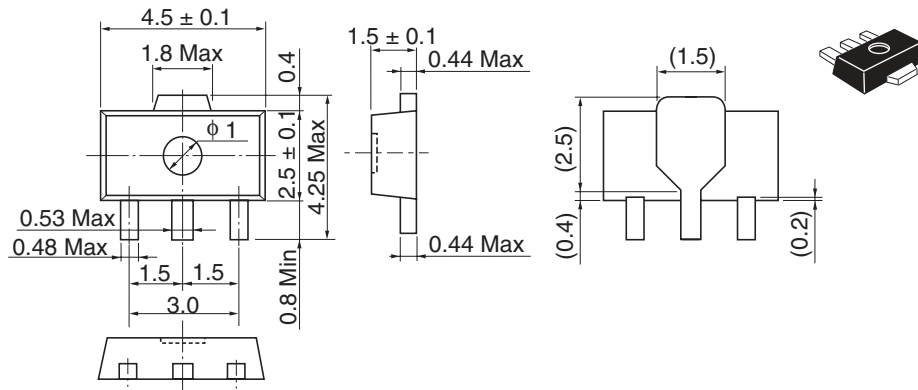
Main Characteristics





## Package Dimensions

As of January, 2003  
Unit: mm



Package Code	UPAK
JEDEC	—
JEITA	Conforms
Mass (reference value)	0.050 g

## 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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