

2SK2596

Silicon N-Channel MOS FET UHF Power Amplifier

REJ03G0207-0300
(Previous ADE-208-1367(Z))
Rev.3.00
Feb.14.2005

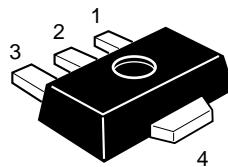
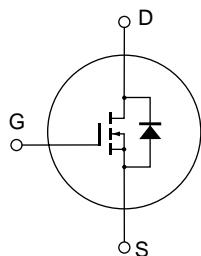
Features

- High power output, High gain, High efficiency
 $PG = 12.2$ dB, $Pout = 30.2$ dBm, $\eta_D = 45\%$ min. ($f = 836.5$ MHz)
- Compact package capable of surface mounting

Outline

PLZZ0004CA-A

(Previous code : UPAK)



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

Note: Marking is "BX".

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	0.4	A
Drain peak current	I _{D(pulse)} ^{Note1}	1	A
Channel dissipation	P _{ch} ^{Note2}	3	W
Channel temperature	T _{ch}	150	°C
Storage temperature	T _{stg}	-45 to +150	°C

Notes: 1. PW ≤ 10 μs, duty cycle ≤ 1%

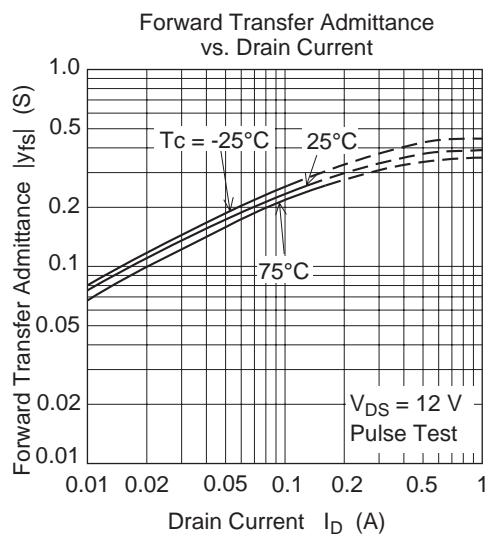
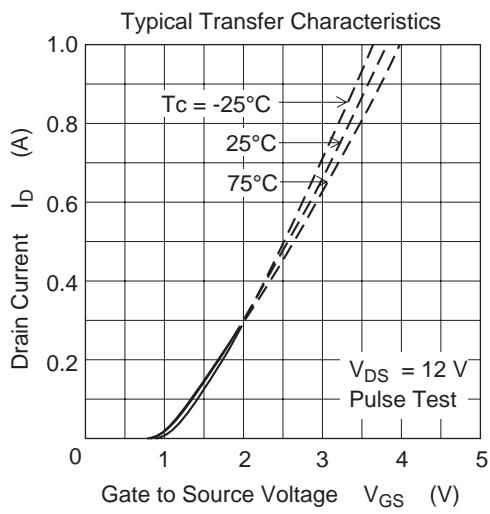
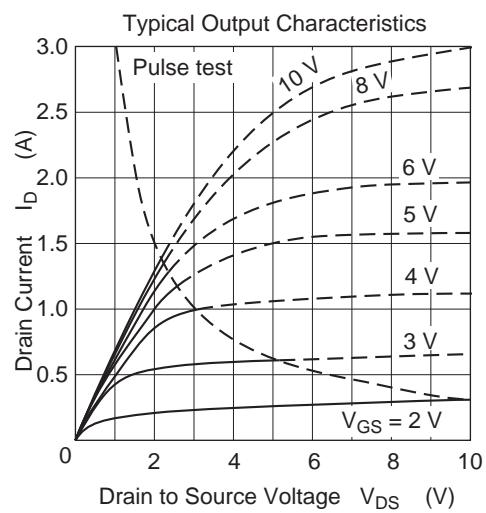
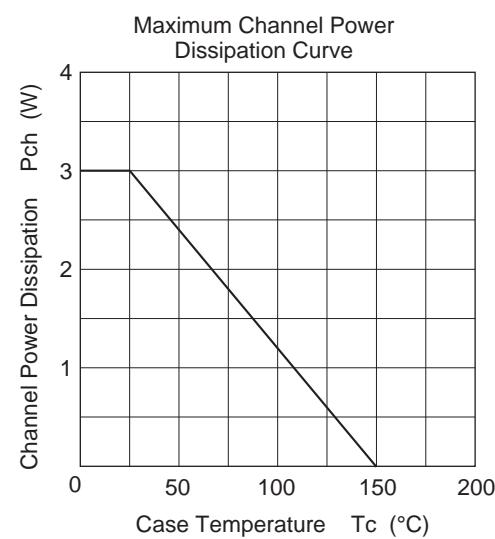
2. Value at T_c = 25°C

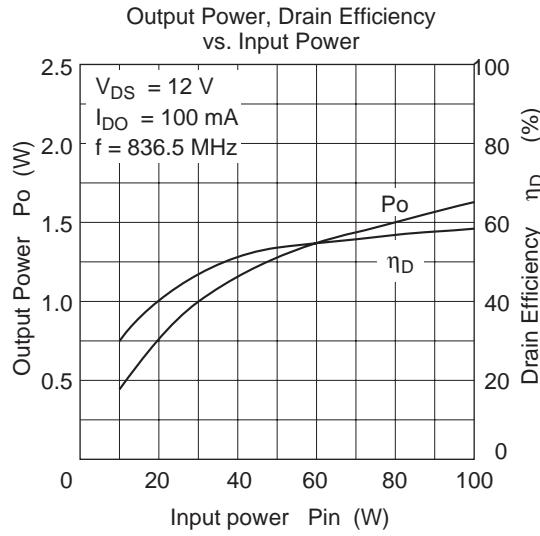
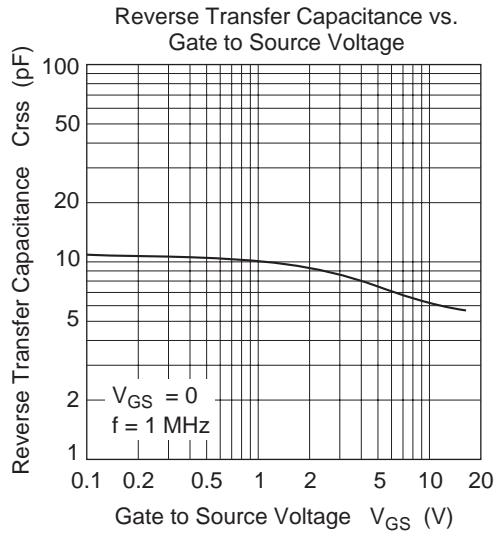
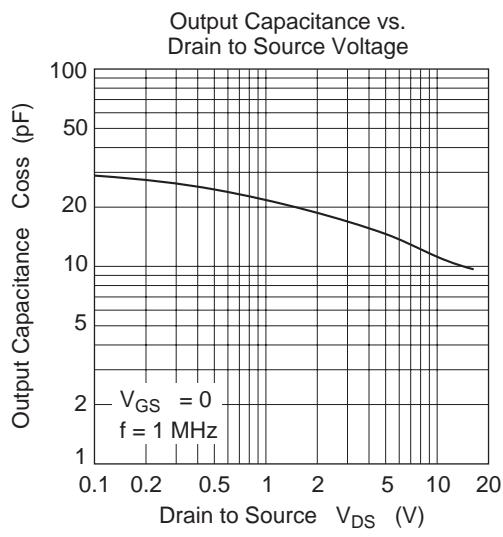
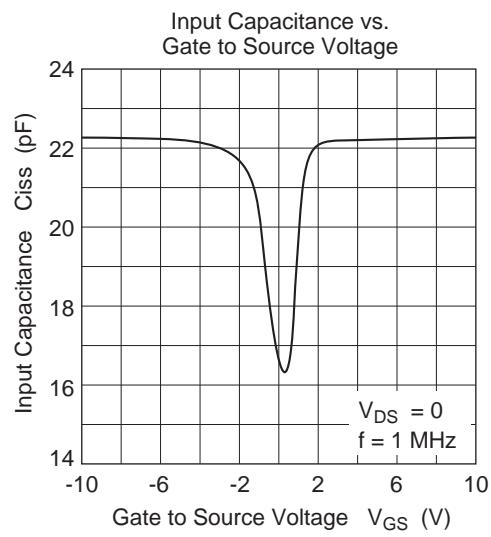
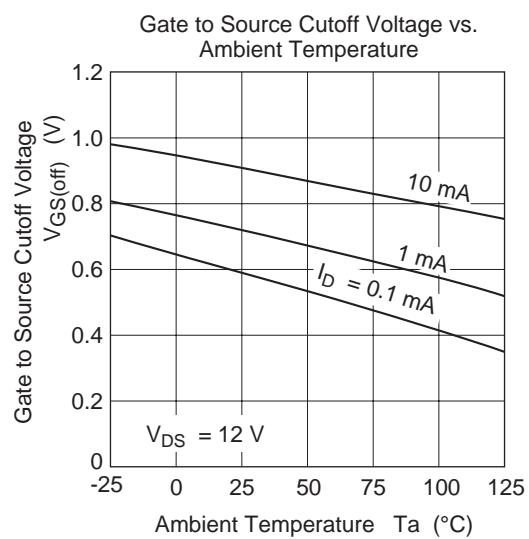
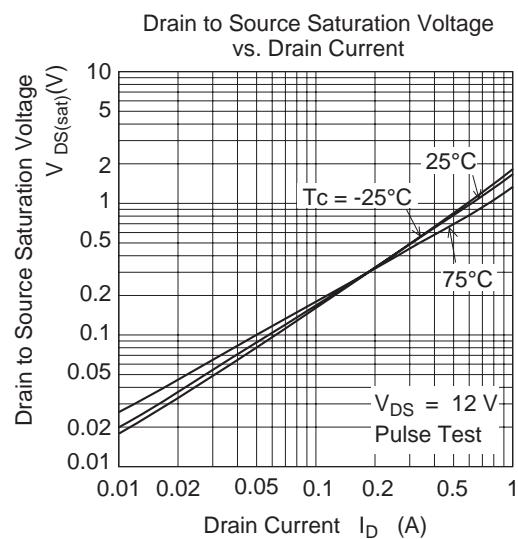
Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min.	Typ	Max.	Unit	Test Conditions
Zero gate voltage drain current	I _{DSS}	—	—	10	μA	V _{DS} = 12 V, V _{GS} = 0
Gate to source leak current	I _{GSS}	—	—	±5.0	μA	V _{GS} = ±10 V, V _{DS} = 0
Gate to source cutoff voltage	V _{GS(off)}	0.4	—	1.1	V	I _D = 2 mA, V _{DS} = 12 V
Input capacitance	C _{iss}	—	22	—	pF	V _{GS} = 5 V, V _{DS} = 0, f = 1 MHz
Output capacitance	C _{oss}	—	10.5	—	pF	V _{DS} = 12 V, V _{GS} = 0, f = 1 MHz
Output Power	P _{out}	30.2	31.46	—	dBm	V _{DS} = 12 V, f = 836.5 MHz Pin = 18 dBm
Drain Efficiency	η _D	45	55	—	%	V _{DS} = 12 V, P _{out} = 30.2 dBm f = 836.5 MHz, Pin = 18 dBm

Main Characteristics





Package Dimensions

JEITA Package Code	RENESAS Code	Previous Code	MASS[Typ.]	Unit: mm
SC-62	PLZZ0004CA-A	UPAK / UPAKV	0.050g	

Ordering Information

Part Name	Quantity	Shipping Container
2SK2596BX	1000	φ178 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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