

2SK435

Silicon N-Channel Junction FET

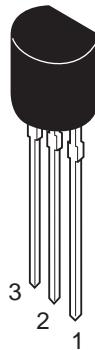
REJ03G0812-0200
(Previous ADE-208-1171)
Rev.2.00
Aug.10.2005

Application

Low frequency / High frequency amplifier

Outline

RENESAS Package code: PRSS0003DB-C
(Package name: TO-92 (2))



1. Drain
2. Source
3. Gate

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Drain to source voltage	V _{DS}	22	V
Gate to source voltage	V _{GSO}	-22	V
Drain current	I _D	100	mA
Gate current	I _G	10	mA
Channel power dissipation	P _{ch}	300	mW
Channel temperature	T _{ch}	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

Electrical Characteristics

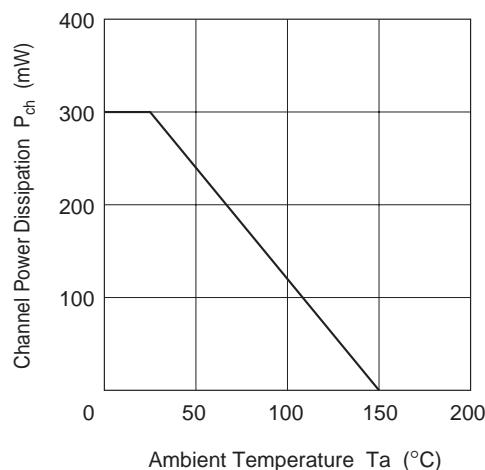
(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Gate to source breakdown voltage	V _{(BR)GSS}	-22	—	—	V	I _G = -10 μA, V _{DS} = 0
Gate cutoff current	I _{GSS}	—	—	-10	nA	V _{GS} = -15 V, V _{DS} = 0
Gate to source cutoff voltage	V _{GS(off)}	—	—	-2.5	V	V _{DS} = 5 V, I _D = 10 μA
Drain current	I _{DSS} ^{*1}	12	—	30	mA	V _{DS} = 5 V, V _{GS} = 0, Pulse test
Forward transfer admittance	y _{fs}	20	—	—	mS	V _{DS} = 5 V, I _D = 10 mA, f = 1kHz
Input capacitance	C _{iss}	—	9.0	11.0	pF	V _{DS} = 5 V, V _{GS} = 0, f = 1MHz
Reverse transfer capacitance	C _{rss}	—	2.8	4.0	pF	V _{DS} = 5 V, V _{GS} = 0, f = 1MHz
Noise figure	NF	—	0.5	3.0	dB	V _{DS} = 5 V, I _D = 1 mA, f = 1kHz, R _g = 1kΩ

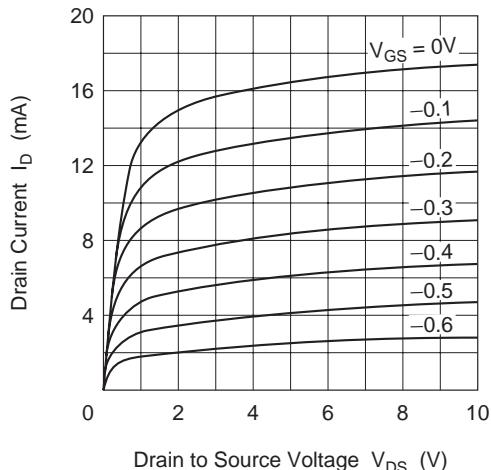
Note: 1. The 2SK435 is grouped by I_{DSS} as follows.

Grade	C	D
I _{DSS}	12 to 22	18 to 30

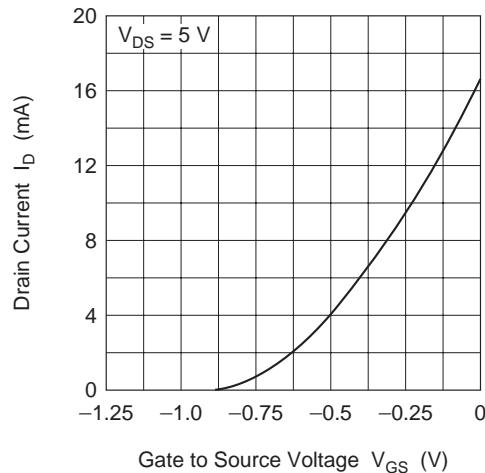
Maximum Channel Dissipation Curve



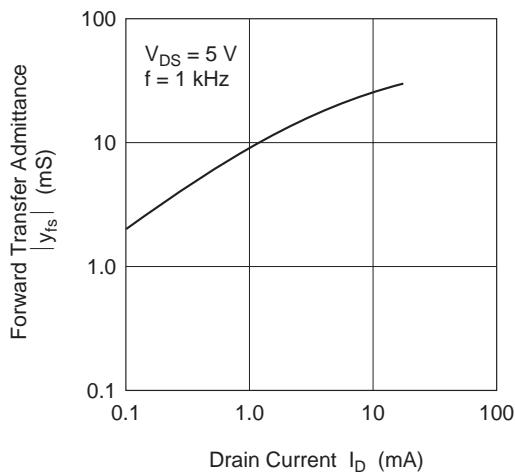
Typical Output Characteristics



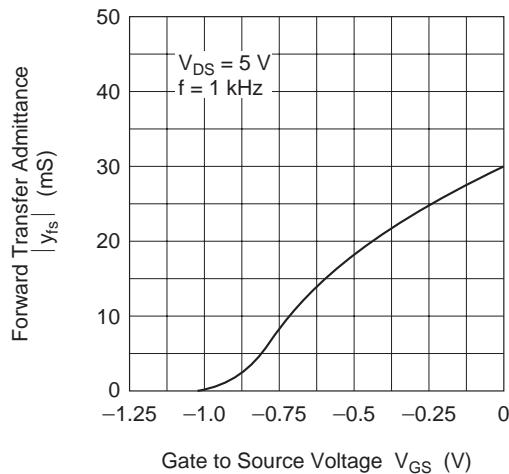
Typical Transfer Characteristics



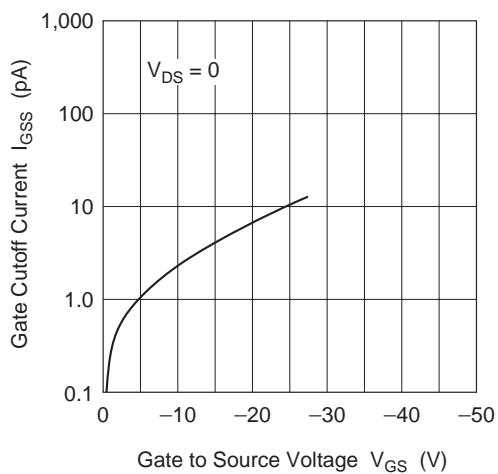
Forward Transfer Admittance vs. Drain Current

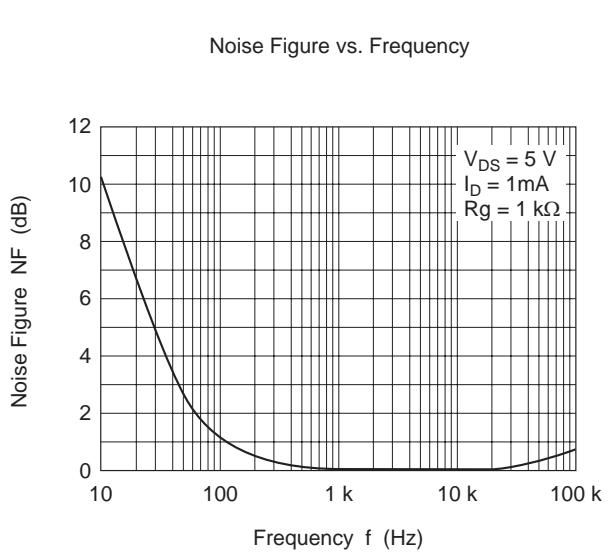
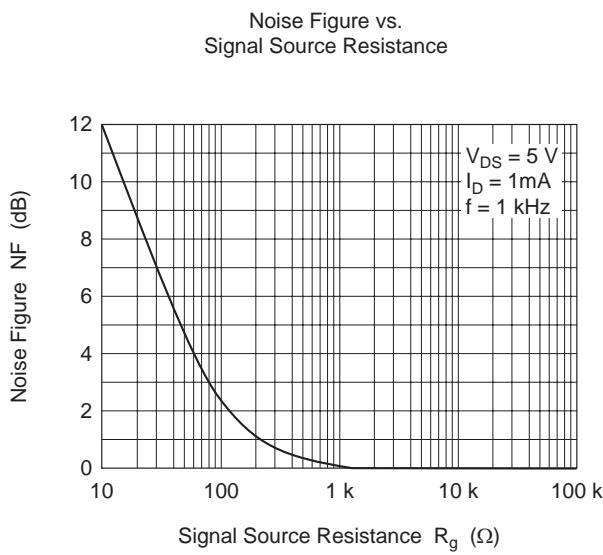
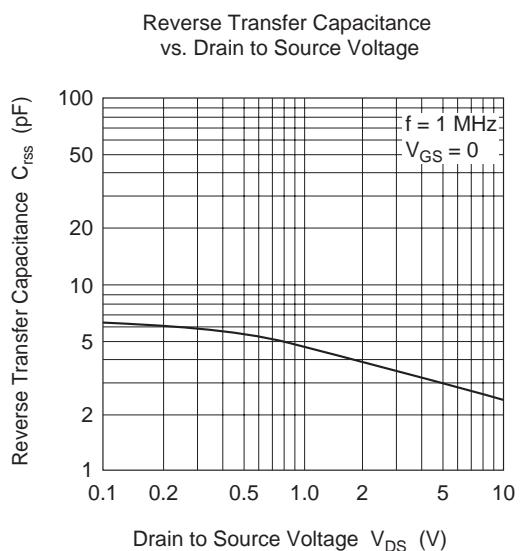
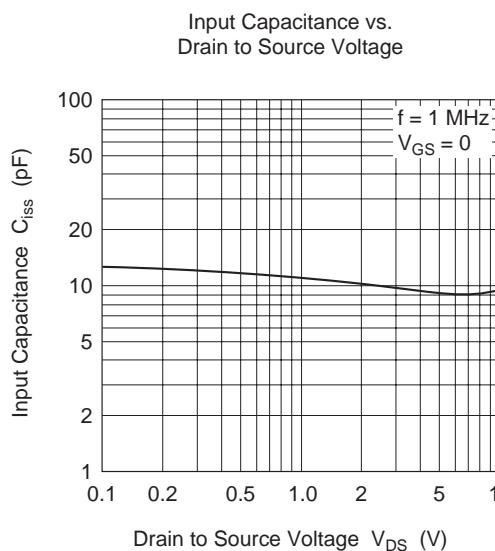


Forward Transfer Admittance vs. Gate to Source Voltage



Gate Cutoff Current vs. Gate to Source Voltage





Package Dimensions

JEITA Package Code	RENESAS Code	Package Name	MASS(Typ.)	Unit: mm
SC-43A	PRSS0003DA-C	TO-92(2) / TO-92(2)V	0.25g	

Ordering Information

Part Name	Quantity	Shipping Container
2SK435CTZ	2500	Radial taping, Hold box
2SK435DTZ	2500	Radial taping, Hold box

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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