N-Channel Junction Silicon FET



2SK427

AM Tuner RF Amplifier Applications

Applications

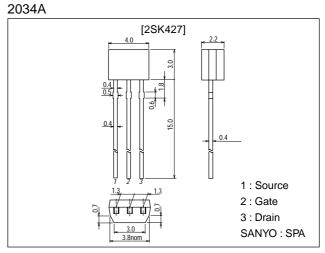
· AM tuner RF amplifiers and low-noise amplifiers.

Features

- \cdot Large $|y_{fs}|$.
- · Ultralow noise figure.
- · Small Crss.

Package Dimensions

unit:mm



Specifications

Absolute Maximum Ratings at Ta = 25°C

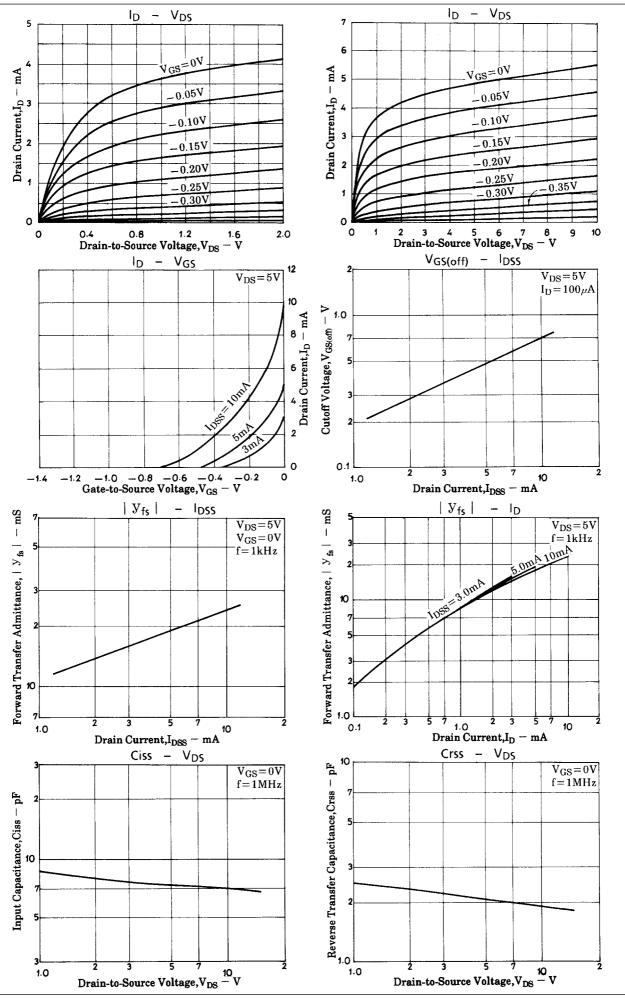
Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V _{DSS}		15	V
Gate-to-Drain Voltage	V _{GDS}		-15	V
Gate Current	۱ _G		10	mA
Drain Current	۱ _D		20	mA
Allowable Power Dissipation	PD		200	mW
Junction Temperature	Tj		125	°C
Storage Temperature	Tstg		-55 to +125	°C

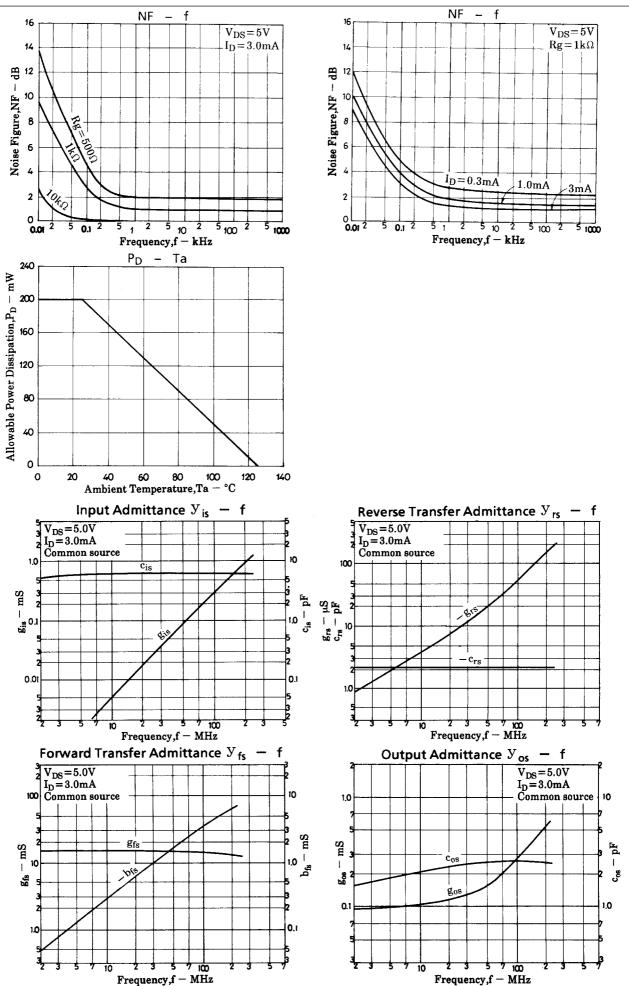
Electrical Characteristics at Ta = 25°C

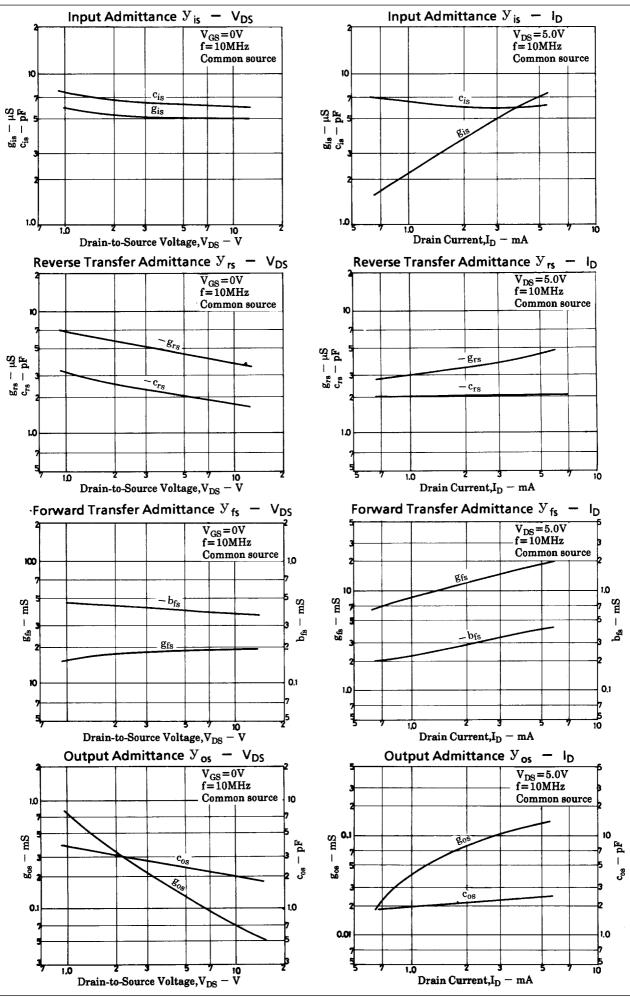
Parameter	Symbol	Conditions									Unit			
Falanetei	Symbol	Conditions							min	typ	max	Offic		
Gate-to-Drain Breakdown Voltage	V(BR)GDS	I _G =-10μA, V _{DS} =0								-15			V	
Gate-to-Source Leakage Current	IGSS	V _{GS} =-10V, V _{DS} =0										-1.0	nA	
Zero-Gate Voltage Drain Current	I _{DSS} *	V _{DS} =5V, V _{GS} =0									1.2*		12.0*	mA
Cutoff Voltage	VGS(off)	V _{DS} =5V, I _D =100µA										-0.5	-1.5	V
Forward Transfer Admittance	yfs	V _{DS} =5V, V _{GS} =0, f=1kHz								8.0	17		mS	
Input Capacitance	Ciss	V _{DS} =5V, V _{GS} =0, f=1MHz									7.0		pF	
Reverse Transfer Capacitance	Crss	V _{DS} =5V, V _{GS} =0, f=1MHz										2.0		pF
Noise Figure	NF	$V_{DS}=5V$, $I_{D}=1mA$, $Rg=1k\Omega$, $f=1kHz$										1.5		dB
* : The 2SK427 is classified by I _{DSS} as follows : (unit : mA)		1.2	Ρ	2.1	1.7	Q	3.0	2.5	R	4.2				
		3.5	S	6.0	5.0	Т	8.5	7.3	U	12.0				

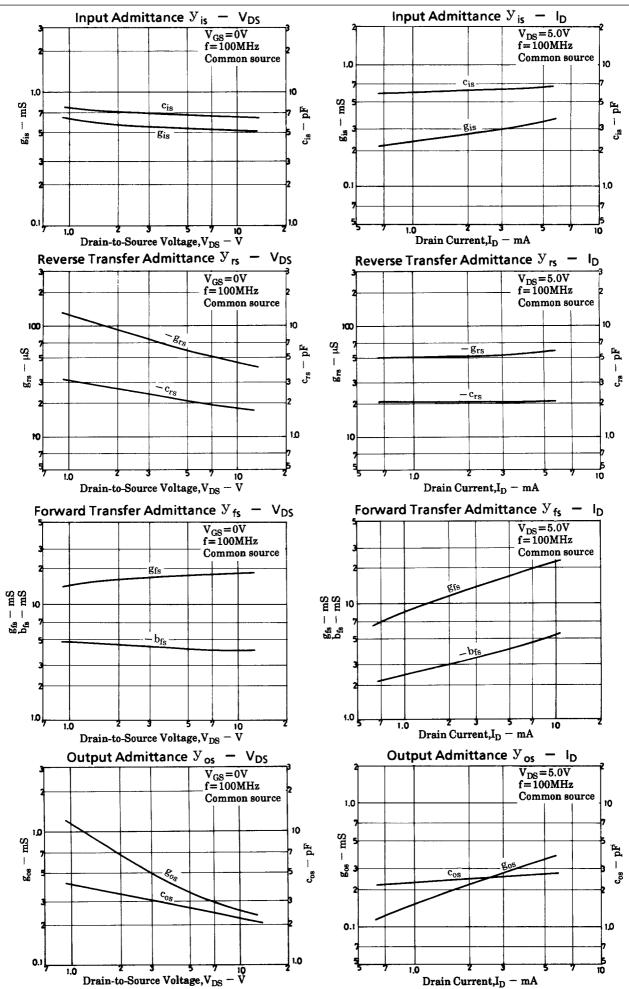
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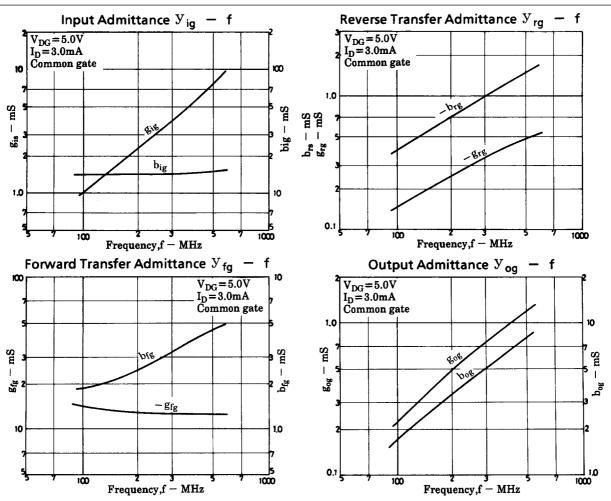
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