N-Channel Junction Silicon FETm



2SK715

AM Tuner, RF Amplifier Applications

Applications

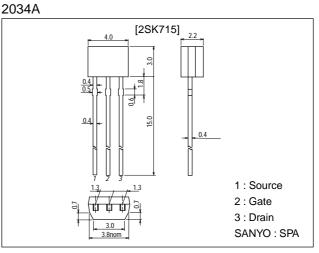
- · AM tuner RF amp, low-noise amp.
- \cdot HF low-noise amp.

Features

- · Adoption of FBET process.
- \cdot Large $|y_{fs}|$.
- · Small Ciss.
- · Very low noise figure.

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	IG		10	mA
Drain Current	I _D		50	mA
Allowable Power Dissipation	PD		300	mW
Junction Temperature	Tj		125	°C
Storage Temperature	Tstg		-55 to +125	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Unit
Gate-to-Drain Breakdown Voltage	V(BR)GDS	IG=-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	IDSS*	V _{DS} =5V, V _{GS} =0	5.0*		24.0*	mA
Cutoff Voltage	VGS(off)	V _{DS} =5V, I _D =100µA		-0.6	-1.4	V
Forward Transfer Admittance	yfs	V _{DS} =5V, V _{GS} =0, f=1kHz	25	50		mS
Input Capacitance	Ciss	V _{DS} =5V, V _{GS} =0, f=1kHz		10		pF
Reverse Transfer Capacitance	Crss	V _{DS} =5V, V _{GS} =0, f=1kHz		3.0		pF
Noise Figure	NF	V_{DS} =5V, Rg=1k Ω , I _D =1mA, f=1kHz		1.5		dB

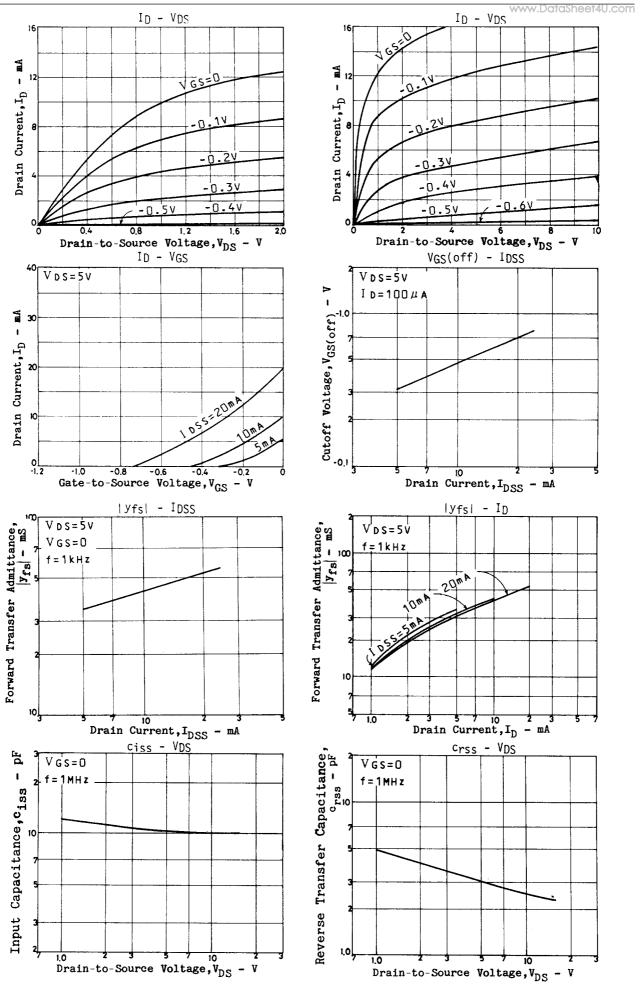
* : The 2SK715 is classified by I_{DSS} as follows : (unit : mA).

5.0 T 8.5 7.3 U 12.0 10.0 V 17.0 14.5 W 24.0

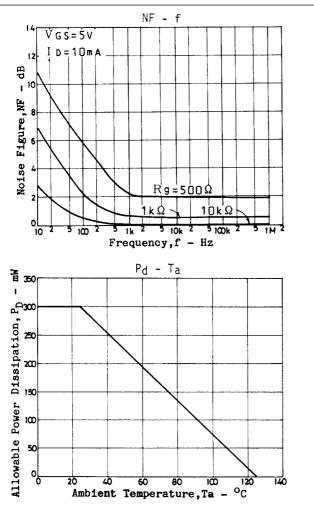
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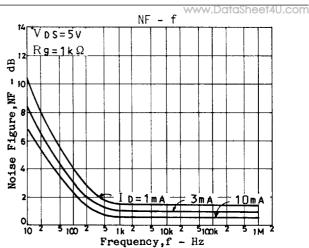
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SANYO Electric Co., Ltd. Semiconductor Company TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN



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