Ordering number:EN2392A

N-Channel Junction Silicon FET

2SK772

AF Amplifier Applications

Applications

· Variable resistors, analog switches, AF amplifier, constant-current circuit.

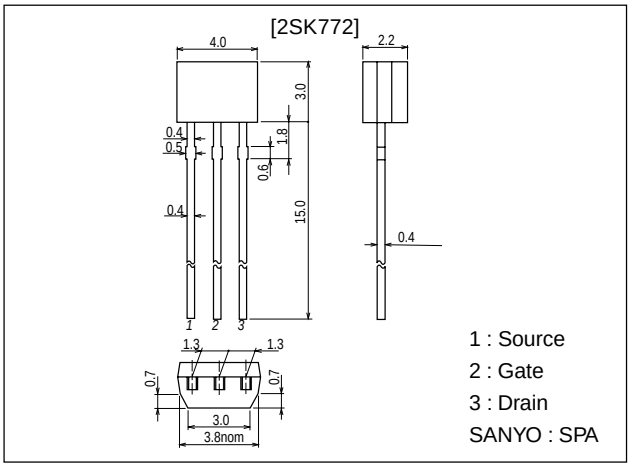
Features

· Adoption of FBET process.

Package Dimensions

unit:mm

2034A



Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSX}		40	V
Gate-to-Source Voltage	V_{GDS}		–40	V
Gate Current	I_G		10	mA
Drain Current	I_D		20	mA
Allowable Power Dissipation	P_D		300	mW
Junction Temperature	Tj		150	˚C
Storage Temperature	Tstg		–55 to +150	˚C

Electrical Characteristics at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gate-to-Drain Breakdown Voltage	$V_{(BR)GDS}$	I_G=–10μA, V_{DS}=0	–40			V
Gate-to-Source Leakage Current	I_{GSS}	V_{GS}=–20V, V_{DS}=0			–1.0	nA
Zero-Gate Voltage Drain Current	I_{DSS}*	V_{DS}=10V, V_{GS}=0	1.2*		12.0*	mA
Cutoff Voltage	$I_{GS(off)}$	V_{DS}=10V, I_D=1μA	–0.3	–0.9	–2.5	V
Forward Transfer Admittance	| yfs |	V_{DS}=10V, V_{GS}=0, f=1kHz	4.5	9.0		mS
Input Capacitance	Ciss	V_{DS}=10V, V_{GS}=0, f=1MHz		9.0		pF
Reverse Transfer Capacitance	Crss	V_{DS}=10V, V_{GS}=0, f=1MHz		2.1		pF
Noise Figure	NF	V_{DS}=10V, Rg=1kΩ, I_D=1mA, f=1kHz		1.5		dB

* : The 2SK772 is classified by I_{DSS} as follows : (unit : mA).

1.2	D	3.0	2.5	E	6.0	5.0	F	12.0

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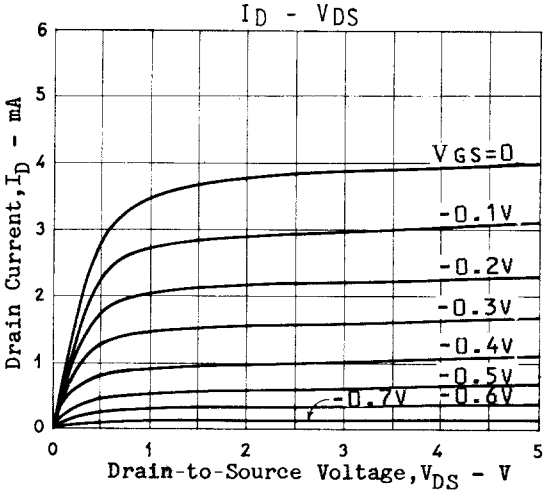
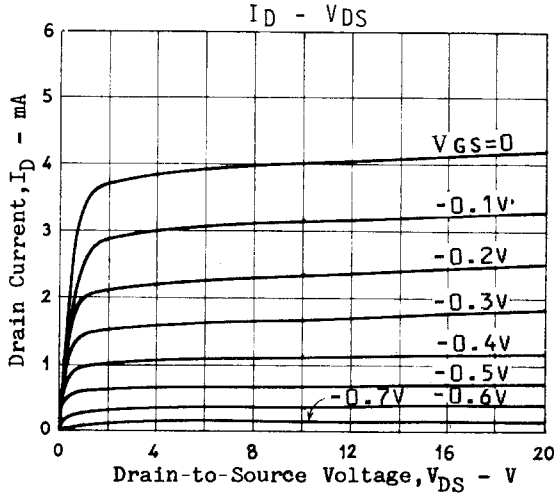
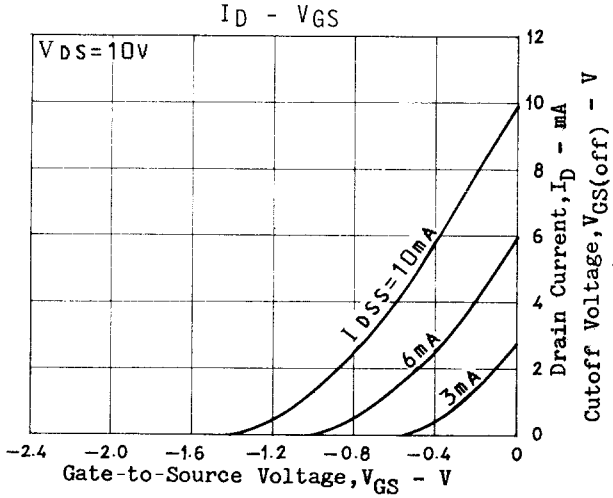
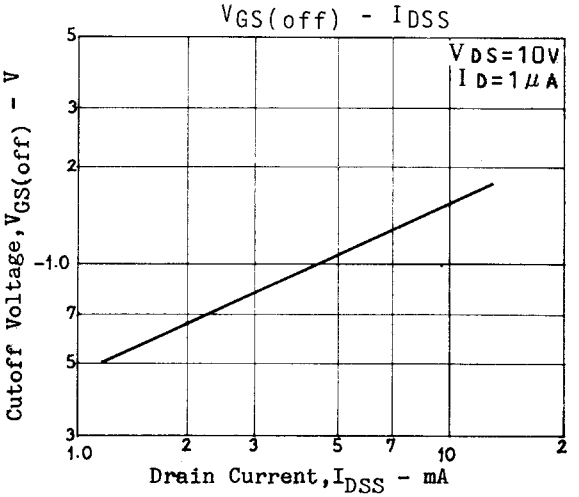
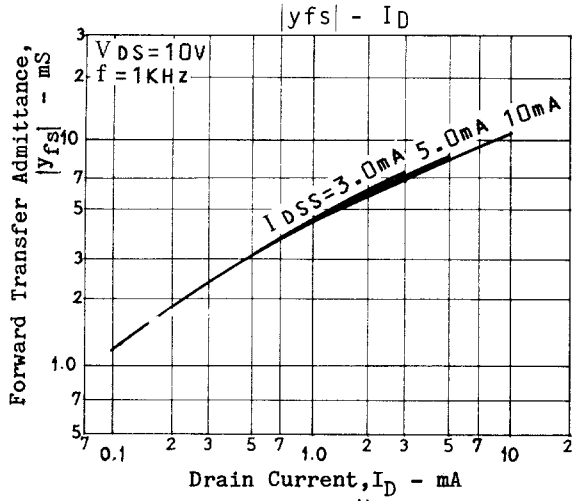
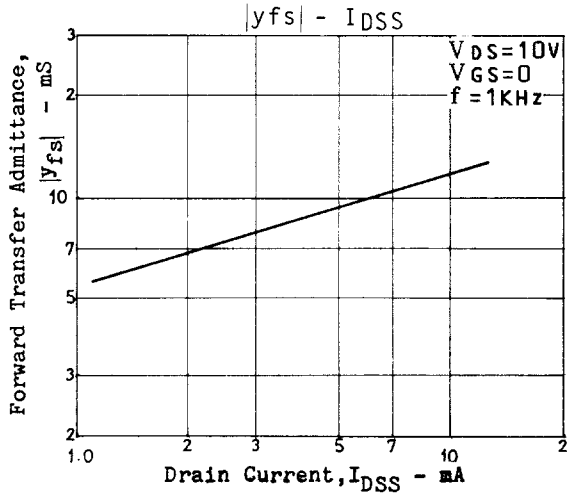

ID - VDS
Drain Current, ID - mA
Drain-to-Source Voltage, VDS - V
VGS=0
-0.1V
-0.2V
-0.3V
-0.4V
-0.5V
-0.6V
-0.7V

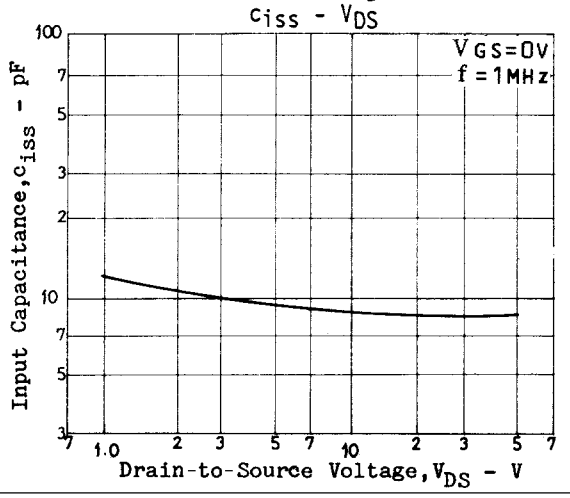

ID - VDS
Drain Current, ID - mA
Drain-to-Source Voltage, VDS - V
VGS=0
-0.1V
-0.2V
-0.3V
-0.4V
-0.5V
-0.6V
-0.7V

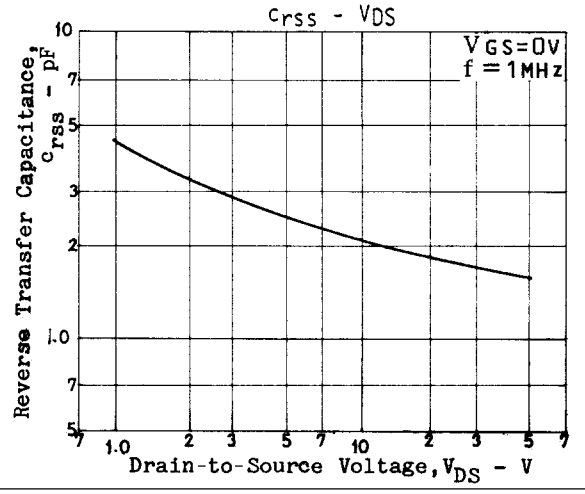

ID - VGS
VDS=10V
IDSS=10mA
6mA
3mA
Drain Current, ID - mA
Gate-to-Source Voltage, VGS - V


VGS(off) - IDSS
VDS=10V
ID=1μA
Cutoff Voltage, VGS(off) - V
Drain Current, IDSS - mA


|yfs| - ID
VDS=10V
f=1KHz
IDSS=3.0mA
5.0mA
10mA
Forward Transfer Admittance, |yfs| - mS
Drain Current, ID - mA


|yfs| - IDSS
VDS=10V
VGS=0
f=1KHz
Forward Transfer Admittance, |yfs| - mS
Drain Current, IDSS - mA


Ciss - VDS
VGS=0V
f=1MHz
Input Capacitance, Ciss - pF
Drain-to-Source Voltage, VDS - V


Crss - VDS
VGS=0V
f=1MHz
Reverse Transfer Capacitance, Crss - pF
Drain-to-Source Voltage, VDS - V