



# **AF Amplifier Applications**

## **Applications**

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

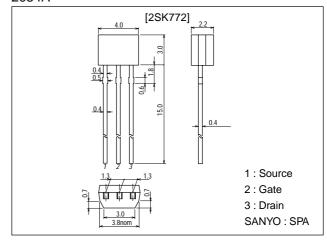
#### **Features**

· 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 <sub>DSX</sub>		40	V
Gate-to-Source Voltage	V <sub>GDS</sub>		-40	V
Gate Current	IG		10	mA
Drain Current	ID		20	mA
Allowable Power Dissipation	P <sub>D</sub>		300	mW
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		-55 to +150	°C

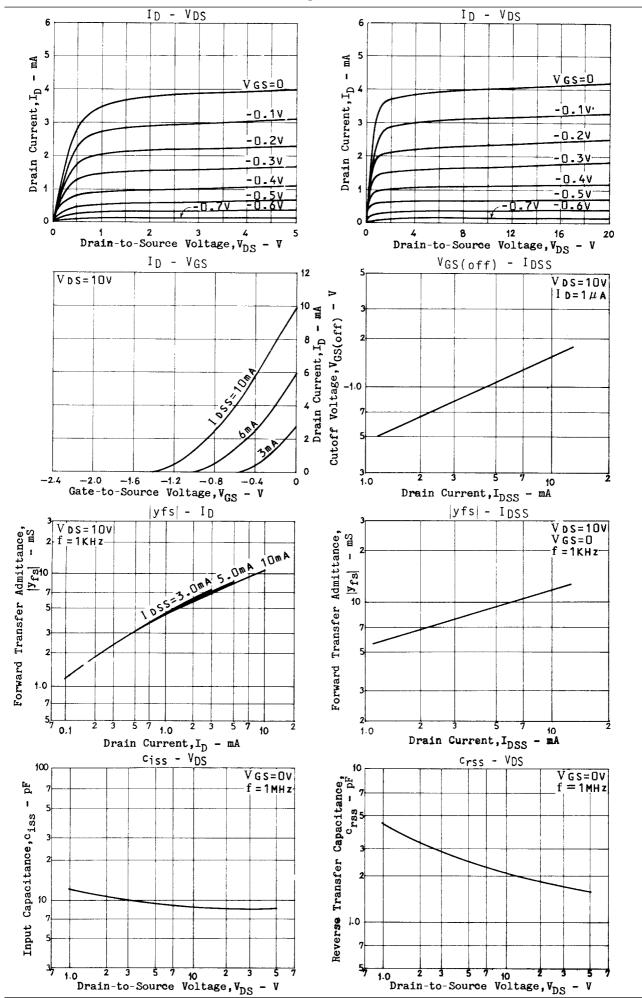
#### Electrical Characteristics at Ta = 25°C

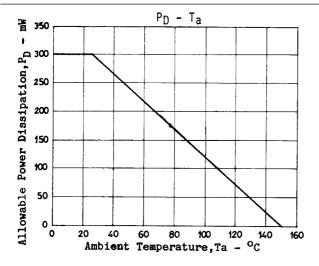
Parameter	Symbol	Conditions	Ratings			Unit
i didiffetei			min	typ	max	01111
Gate-to-Drain Breakdown Voltage	V(BR)GDS	I <sub>G</sub> =-10μA, V <sub>DS</sub> =0	-40			V
Gate-to-Source Leakage Current	IGSS	V <sub>GS</sub> =-20V, V <sub>DS</sub> =0			-1.0	nA
Zero-Gate Voltage Drain Current	I <sub>DSS</sub> *	V <sub>DS</sub> =10V, V <sub>GS</sub> =0	1.2*		12.0*	mA
Cutoff Voltage	IGS(off)	V <sub>DS</sub> =10V, I <sub>D</sub> =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 <sub>DS</sub> =10V, V <sub>GS</sub> =0, f=1MHz		2.1		pF
Noise Figure	NF	$V_{DS}$ =10V, Rg=1k $\Omega$ , I $_{D}$ =1mA, f=1kHz		1.5		dB

<sup>\*</sup>: 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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