〈Field-Effect Transistor〉

2SK2881

For Low Frequency Amplify Application

N Channel Junction type Micro(Frame type)

DESCRIPTION

2SK2880 is a small type resin sealed N channel junction type FET. It is especially designed for low frequency low noise amplify application.

FEATURE

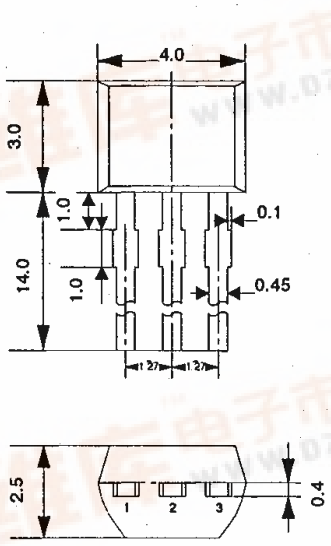
- Low noise figure NF=1dB (typ) (V_{DS}=10V, I_D=1mA, R_G=1kΩ, f=100Hz)
- High |yfs| |yfs|=8mS(typ) (V_{DS}=10V, I_D=1mA, f=1KHz)
- Low $R_{DS(ON)}$ $R_{DS(ON)}$=70Ω (typ)
- High voltage V_{GDO}=V_{GSO}=-50V

APPLICATION

Low frequency voltage amplify, analog switch.

OUTLINE DRAWING

UNIT:mm



TERMINAL CONNECTOR

① : SOURSE
② : GATE
③ : DRAIN

EIAJ : —
JEDEC : —

MAXIMUM RATINGS (Ta=25°C)

SYMBOL	PARAMETER	RATINGS	UNIT
V_{GDO}	Gate to Drain voltage	-50	V
V_{GSO}	Gate to Source voltage	-50	V
I_D	Drain current	20	mA
I_G	Gate current	10	mA
P_T	Total allowable dissipation	450	mW
T_{ch}	Channel temperature	+125	°C
T_{stg}	Storage temperature	-55to+125	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

SYMBOL	PARAMETER	TESTCONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
I_{GSS}	Gate leakage current	V_{GS}=-30V, V_{DS}=0			1	nA
I_{DSS} *	Drain current	V_{DS}=10V, V_{GS}=0	1	4	12	mA
$V_{GS(off)}$	Cut off voltage	V_{DS}=10V, I_D=10μA	-0.1		-3.0	V
|yfs|	Forward transfer admittance	V_{DS}=10V, V_{GS}=0, f=1kHz	6.0	15		mS
|yfs|	Forward transfer admittance	V_{DS}=10V, I_D=1mA, f=1kHz		8		mS
|yos|	Output admittance	V_{DS}=10V, V_{GS}=0, f=1kHz		10		μS
C_{iss}	Input capacitance	V_{DS}=10V, V_{GS}=0, f=1MHz		20		pF
NF	Noise figure	V_{DS}=10V, I_D=1mA, f=100Hz, R_G=1KΩ		1.0	2.5	dB
$R_{DS(ON)}$	Drain to Sourse resistor	V_{DS}=10mVrms(1kHz), V_{GS}=0, I_{DSS}=5mA		70		Ω

ITEM	C	D	E
I_{DSS}	1.0~3.0	2.5~6.0	5.0~12

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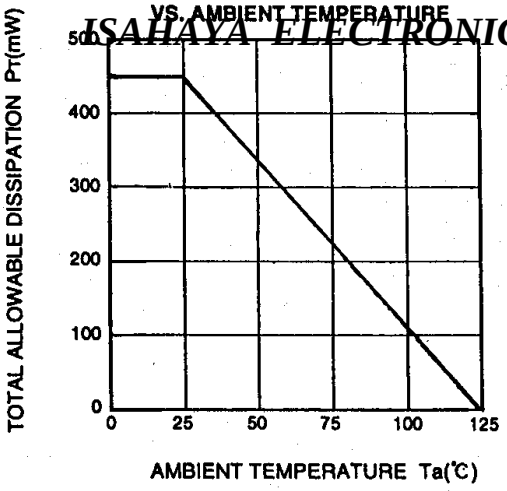
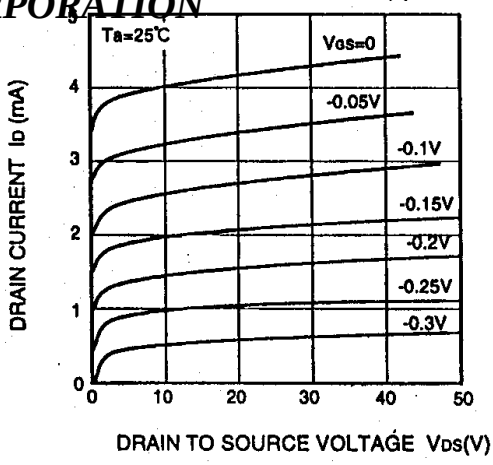
TYPICAL CHARACTERISTICS

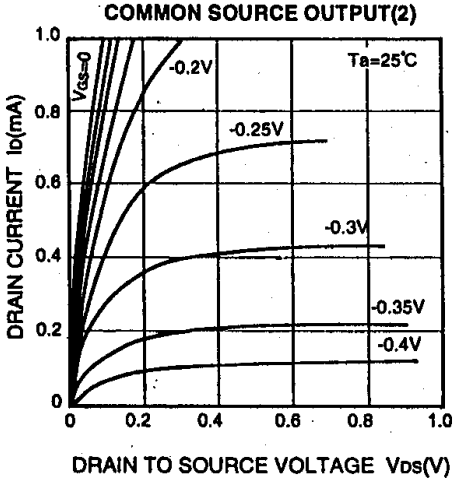
TOTAL ALLOWABLE DISSIPATION VS. AMBIENT TEMPERATURE



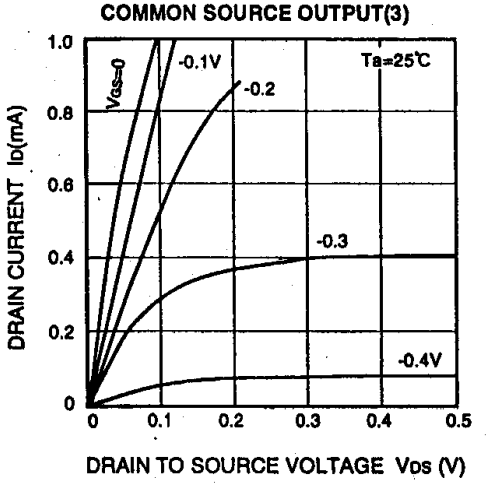
COMMON SOURCE OUTPUT(1)



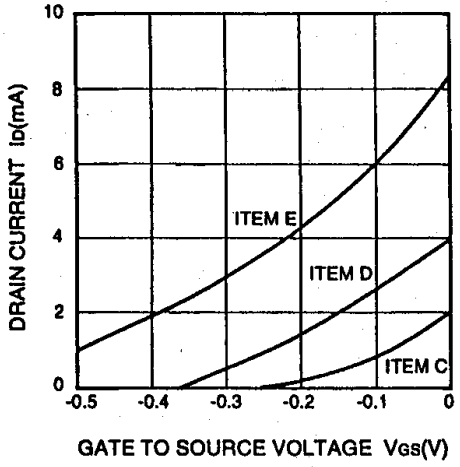
COMMON SOURCE OUTPUT(2)



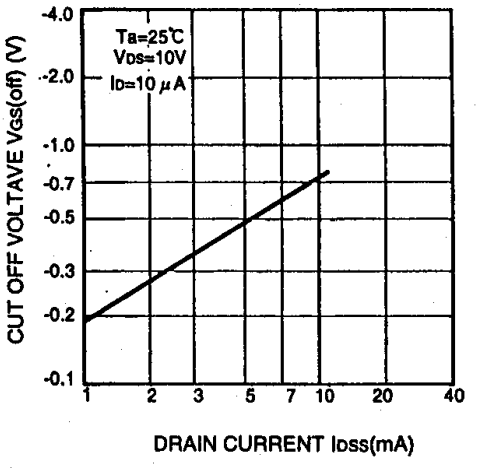
COMMON SOURCE OUTPUT(3)



COMMON SOURCE TRANSFER



CUT OFF VOLTAGE VS. DRAIN CURRENT



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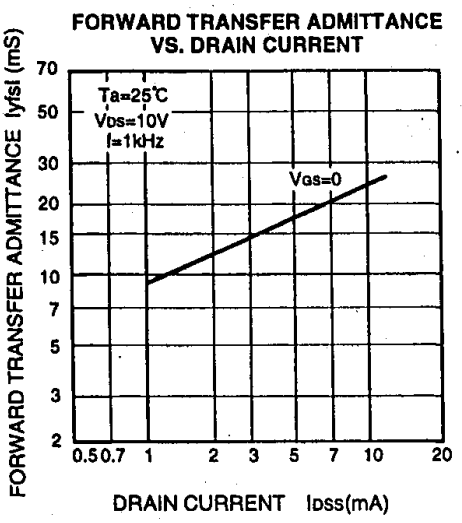
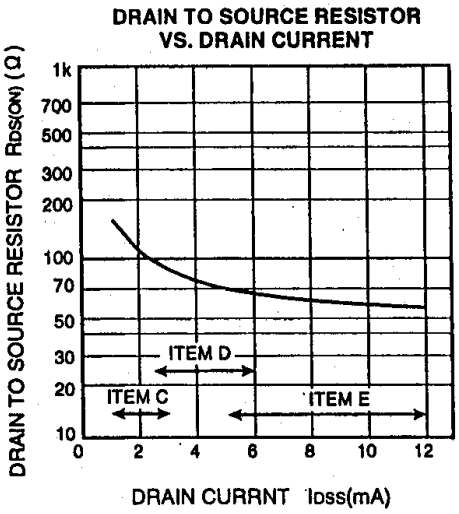
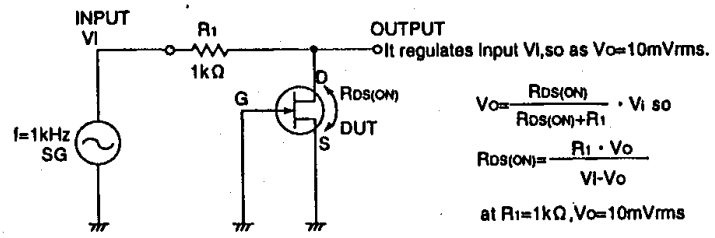




DRAIN TO SOURCE RESISTOR $R_{DS(ON)}$ TEST CIRCUIT



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