

(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

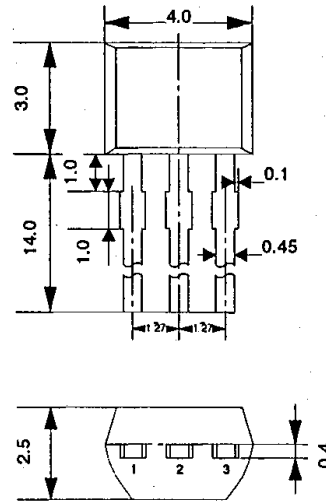
- Low noise figure $NF=1\text{dB}$ (typ)
($V_{DS}=10\text{V}$, $I_D=1\text{mA}$, $R_G=1\text{k}\Omega$, $f=100\text{Hz}$)
- High $|y_{fs}|$ $|y_{fs}|=8\text{mS}$ (typ)
($V_{DS}=10\text{V}$, $I_D=1\text{mA}$, $f=1\text{kHz}$)
- Low $R_{DS(ON)}$ $R_{DS(ON)}=70\Omega$ (typ)
- High voltage $V_{GDO}=V_{GSO}=-50\text{V}$

APPLICATION

Low frequency voltage amplify, analog switch.

OUTLINE DRAWING

UNIT:mm



TERMINAL CONNECTOR

- ① : SOURCE EIAJ : —
② : GATE JEDEC : —
③ : DRAIN

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

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	$^\circ\text{C}$
T_{stg}	Storage temperature	-55to+125	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
I_{GSS}	Gate leakage current	$V_{GS}=-30\text{V}$, $V_{DS}=0$			1	nA
I_{DSS}^*	Drain current	$V_{DS}=10\text{V}$, $V_{GS}=0$	1	4	12	mA
$V_{GS(off)}$	Cut off voltage	$V_{DS}=10\text{V}$, $I_D=10\mu\text{A}$	-0.1		-3.0	V
$ y_{fs} $	Forward transfer admittance	$V_{DS}=10\text{V}$, $V_{GS}=0$, $f=1\text{kHz}$	6.0	15		mS
$ y_{fs} $	Forward transfer admittance	$V_{DS}=10\text{V}$, $I_D=1\text{mA}$, $f=1\text{kHz}$		8		mS
$ y_{os} $	Output admittance	$V_{DS}=10\text{V}$, $V_{GS}=0$, $f=1\text{kHz}$		10		μS
C_{iss}	Input capacitance	$V_{DS}=10\text{V}$, $V_{GS}=0$, $f=1\text{MHz}$		20		pF
NF	Noise figure	$V_{DS}=10\text{V}$, $I_D=1\text{mA}$, $f=100\text{Hz}$, $R_G=1\text{K}\Omega$		1.0	2.5	dB
$R_{DS(ON)}$	Drain to Source resistor	$V_{DS}=10\text{mVrms}(1\text{kHz})$, $V_{GS}=0$, $I_{DSS}=5\text{mA}$		70		Ω

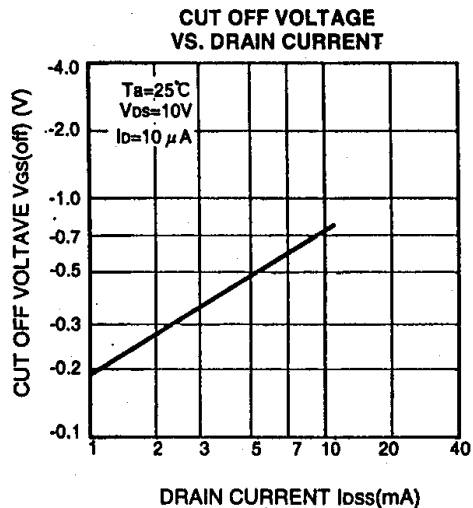
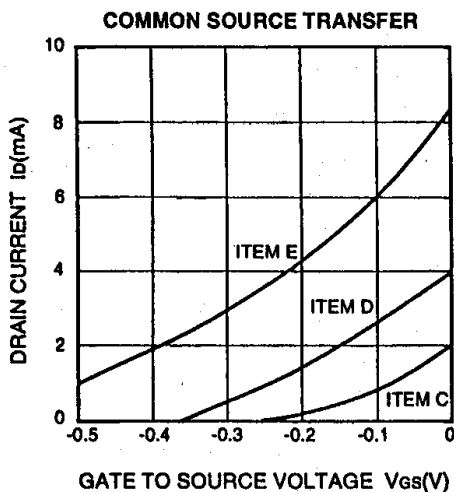
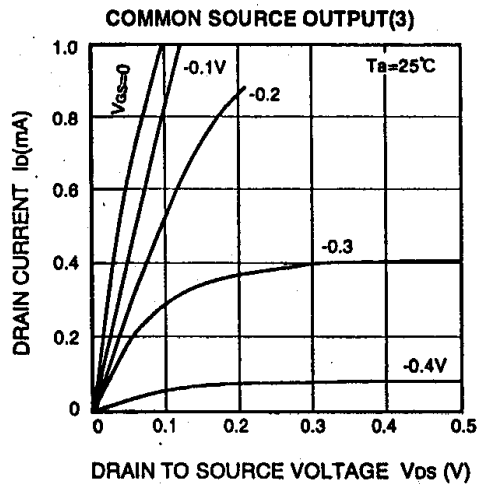
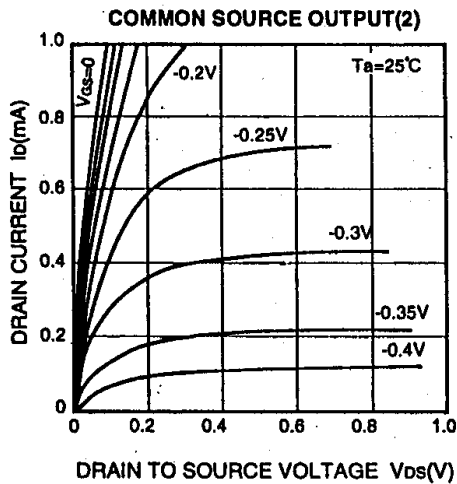
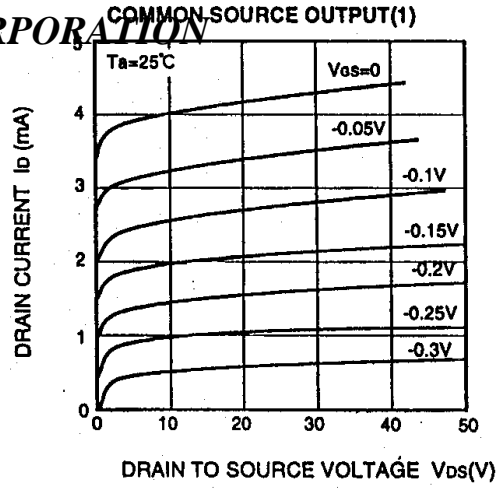
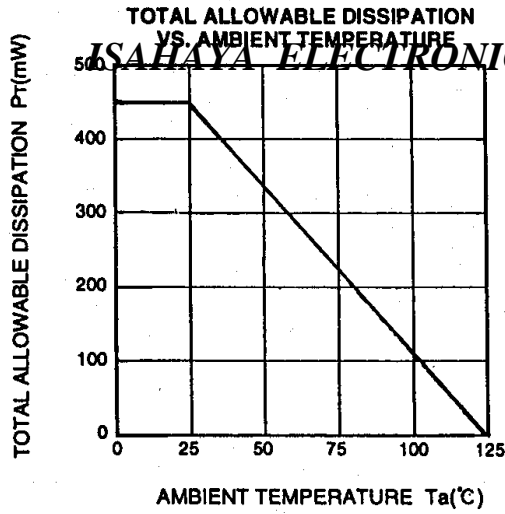
ITEM	C	D	E
I_{DSS}	1.0~3.0	2.5~6.0	5.0~12

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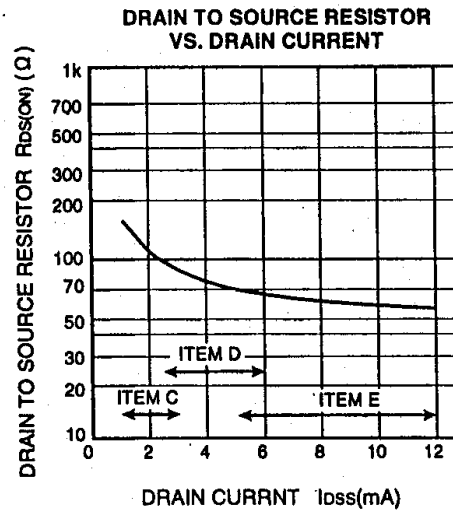
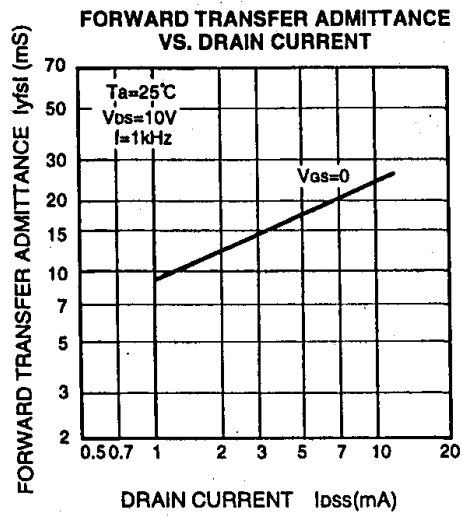
TYPICAL CHARACTERISTICS



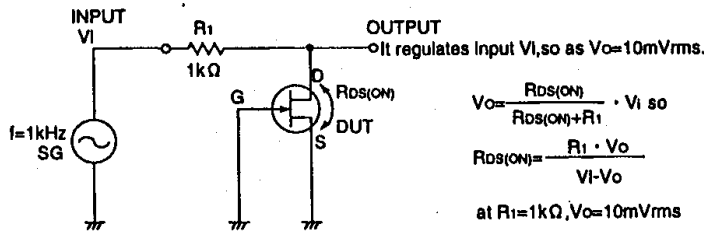
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DRAIN TO SOURCE RESISTOR $R_{DS(ON)}$ TEST CIRCUIT



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