

(Field-Effect Transistor)

2SK2880

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 voltage amplify, analog switch application.

FEATURE

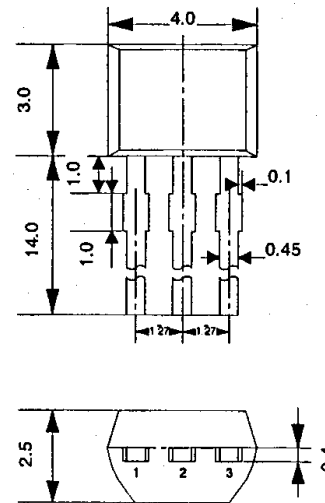
- Small type for mounting
- High $|y_{fs}|$ $|y_{fs}|=3\text{mS}(\text{typ})$
- Low $R_{DS(ON)}$ $R_{DS(ON)}=250\ \Omega(\text{typ})$

APPLICATION

General purpose voltage amplify, analog switch circuit for stereo, cassette deck, VCR.

OUTLINE DRAWING

UNIT:mm



TERMINAL CONNECTOR

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

MAXIMUM RATINGS (Ta=25°C)

SYMBOL	PARAMETER	RATINGS	UNIT
V _{GD0}	Gate to Drain voltage	-50	V
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	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
V _{(BR)GD0}	G to D break down voltage	I _G =-10 μA, I _S =0	-50			V
I _{GSS}	Gate leakage current	V _{GS} =-30V, V _{DS} =0			-1	nA
I _{DSS} *	Drain current	V _{DS} =10V, V _{GS} =0	0.3		12	mA
V _{GS(off)}	Cut off voltage	V _{DS} =10V, I _D =10 μA	-0.3	-1.5	-6.0	V
y _{fs}	Forward transfer admittance	V _{DS} =10V, V _{GS} =0, f=1kHz	1.0	3.0		mS
y _{os}	Output admittance	V _{DS} =10V, V _{GS} =0, f=1kHz		10		μS
C _{iss}	Input capacitance	V _{DS} =10V, V _{GS} =0, f=1MHz		8		pF
C _{rss}	Feed back capacitance	V _{DS} =10V, V _{GS} =0, f=1MHz		1.5		pF
R _{DS(ON)}	Drain to Source resistor	V _{DS} =10mVrms(1kHz), V _{GS} =0, I _{DSS} =5mA		250		Ω

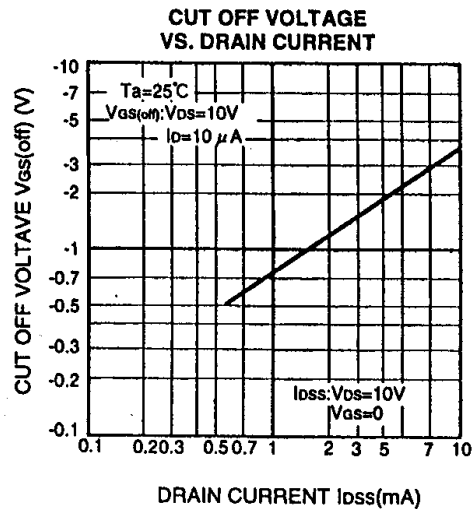
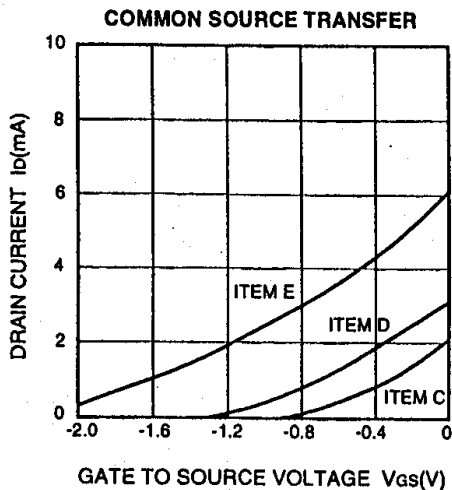
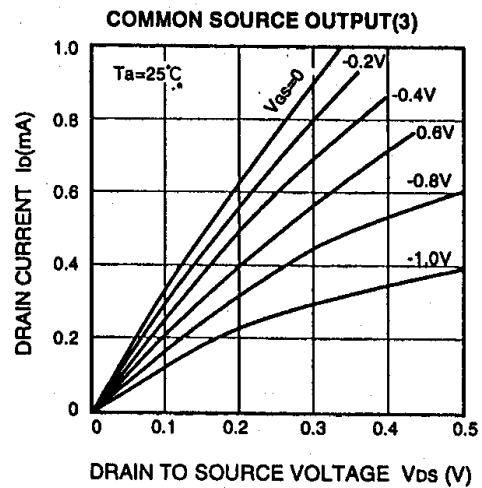
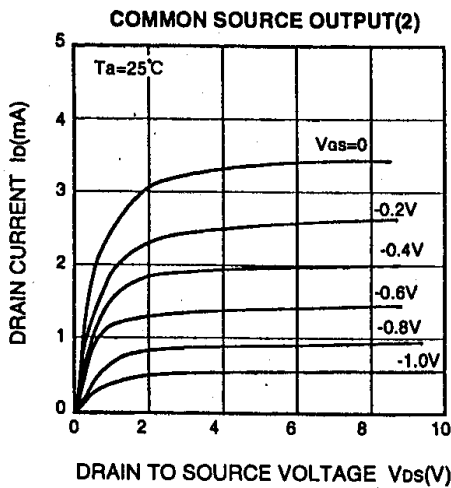
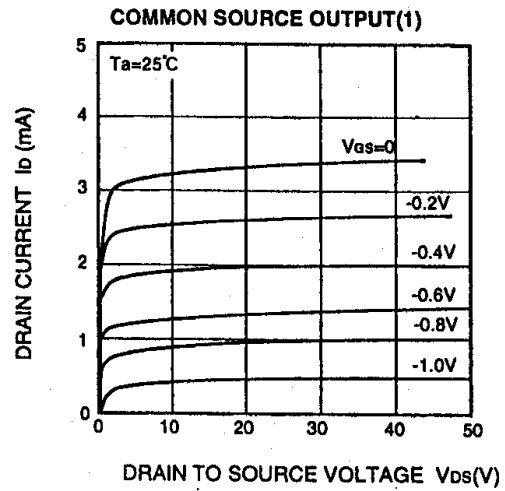
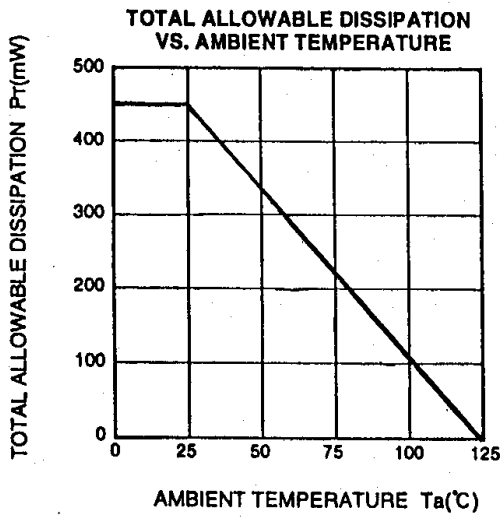
ITEM	A	B	C	D	E
I _{DSS}	0.3~0.8	0.6~1.5	1.0~3.0	2.5~6.0	5.0~12

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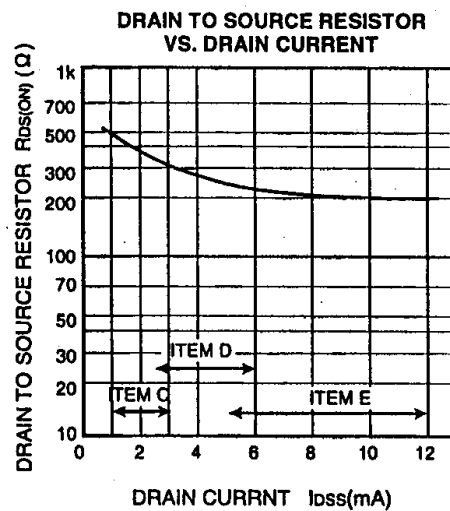
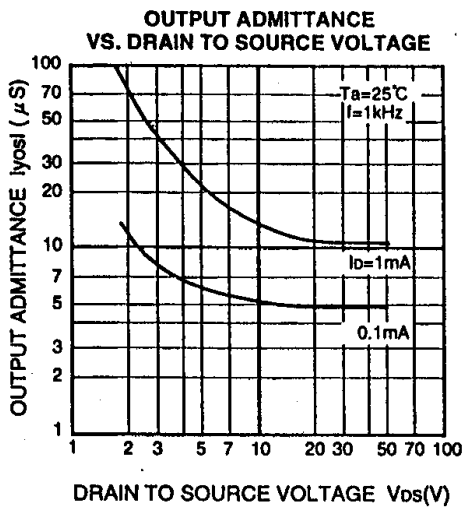
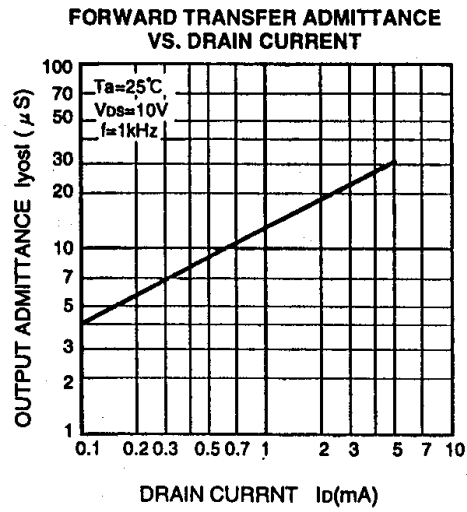
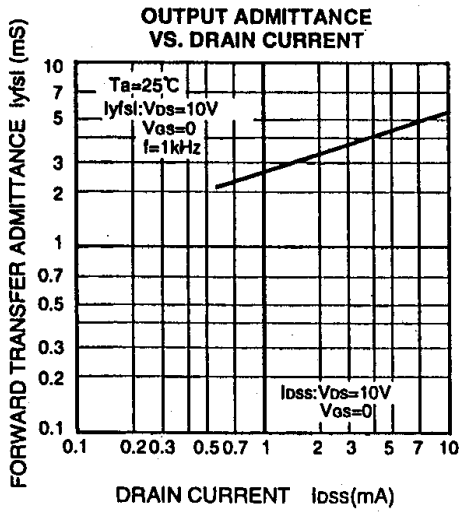
TYPICAL CHARACTERISTICS



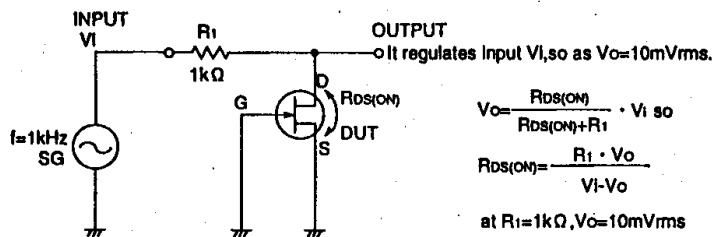
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DRAIN TO SOURCE RESISTOR $R_{ds(on)}$ TEST CIRCUIT



$$V_o = \frac{R_{ds(on)}}{R_{ds(on)} + R_1} \cdot V_i \text{ so}$$

$$R_{ds(on)} = \frac{R_1 \cdot V_o}{V_i - V_o}$$

at $R_1=1\text{k}\Omega, V_o=10\text{mVrms}$

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