

〈FIELD-EFFECT TRANSISTOR〉

2SJ125

**FOR LOW FREQUENCY AMPLIFY APPLICATION
P CHANNEL JUNCTION TYPE**

DESCRIPTION

2SJ125 is a small type resin sealed P channel junction type FET. It is especially designed for low frequency voltage amplify, analog switch application.

FEATURE

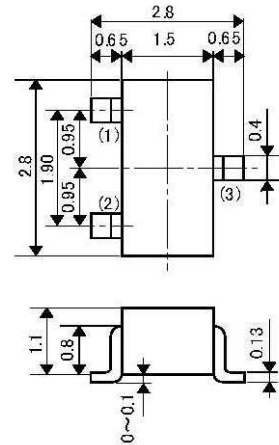
- Small type for mounting.
- High $|y_{fs}|$ $|y_{fs}| = 4\text{mS (typ)}$
- Low $R_{DS(ON)}$ $R_{DS(ON)} = 220 \Omega$

APPLICATION

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

OUTLINE DRAWING

Unit:mm

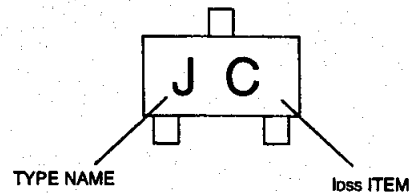


TERMINAL CONNECTOR

- ① : SOURCE
 - ② : DRAIN
 - ③ : GATE
- EIAJ : SC-59
JEDEC : TO-236 resemblance

Note)
The dimension without tolerance represent central value.

MARKING



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 (Ta = 25 °C)	150	mW
T _{ch}	Channel temperature	+125	°C
T _{stg}	Storage temperature	-55 to +125	°C

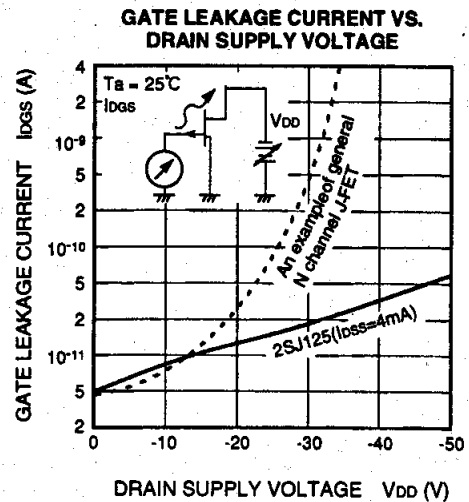
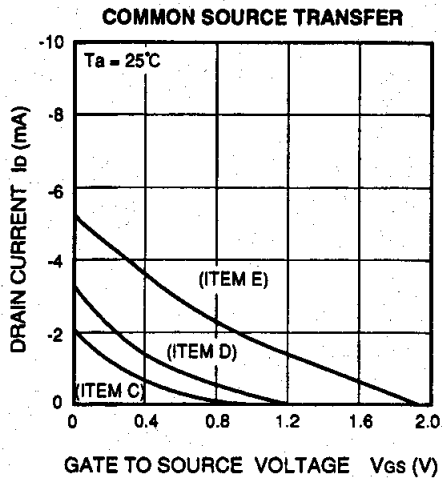
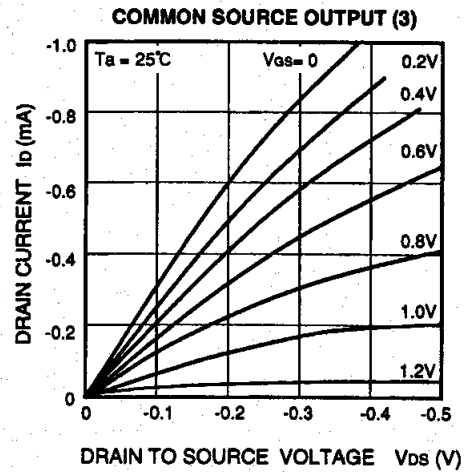
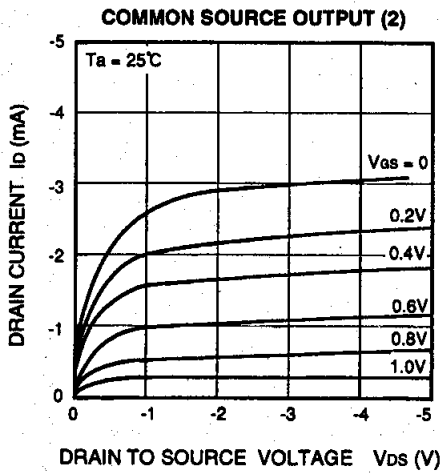
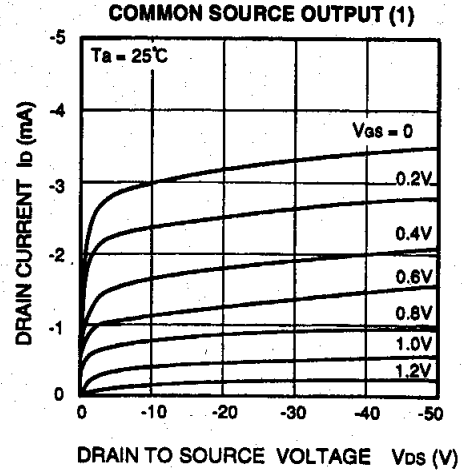
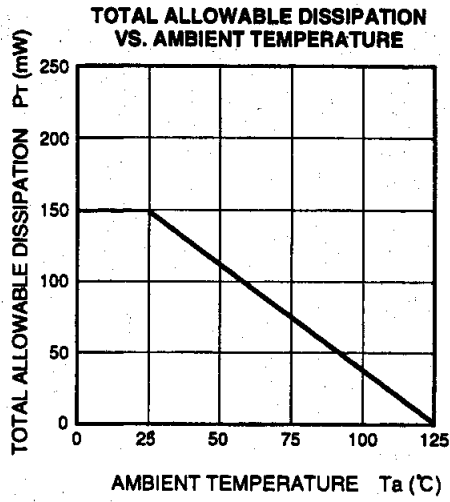
ELECTRICAL CHARACTERISTICS (Ta=25°C)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
V _{(BR)GDO}	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	-1.0	-4.0	-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	1.5	4.0		mS
C _{iss}	Input capacitance	V _{DS} = -10V, V _{GS} = 0, f = 1MHz		18		pF
R _{DS(ON)}	Drain to source resistor	V _{DS} = 10mVrms(1kHz), V _{GS} = 0, I _{DSS} = 5mA		220		Ω

* : It shows loss classification in right table.

Item	C	D	E
I _{DSS} (mA)	1.0 to 3.0	2.5 to 6.0	5.0 to 12

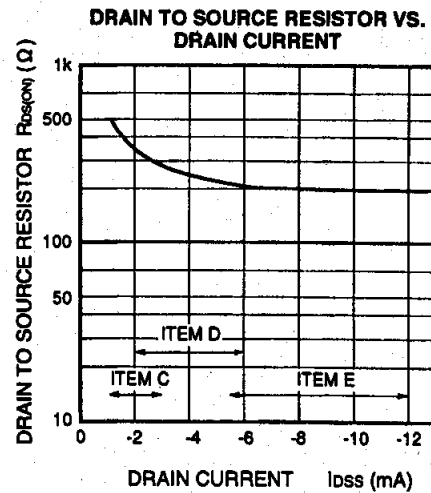
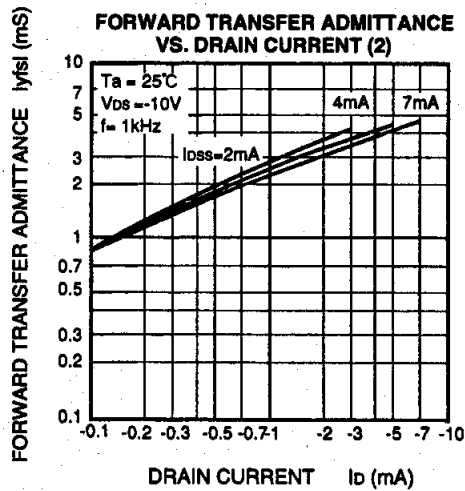
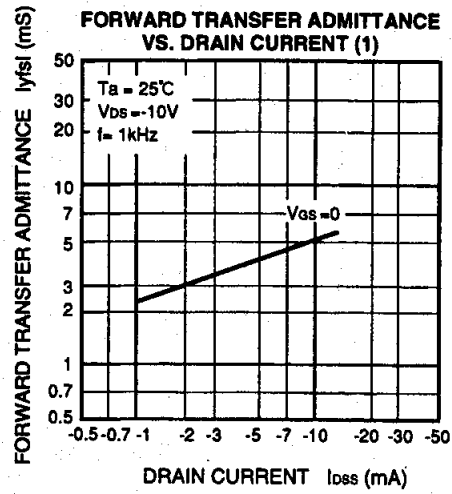
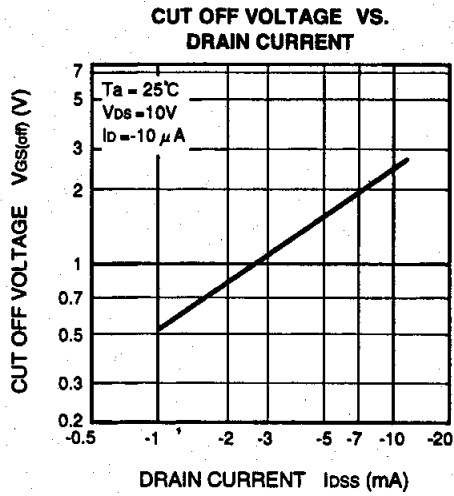
TYPICAL CHARACTERISTICS



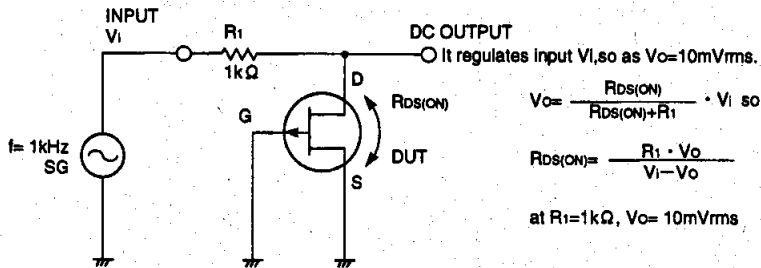
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P CHANNEL JUNCTION TYPE



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



 **ISAHAYA ELECTRONICS CORPORATION**

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