

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

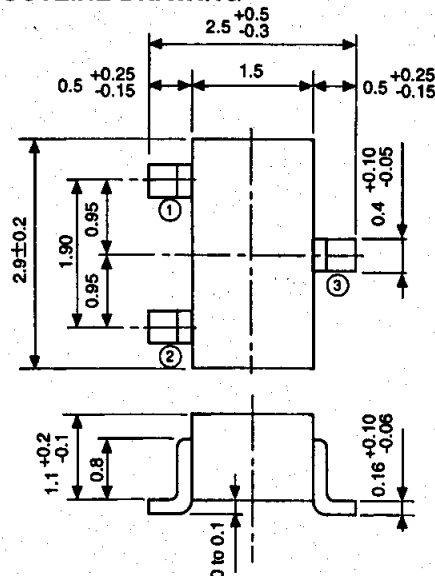
- Small type for mounting.
- High $|y_{fs}|$ $|y_{fs}| = 4\text{mS (typ)}$
- Low $R_{DS(ON)}$ $R_{DS(ON)} = 220\ \Omega$

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

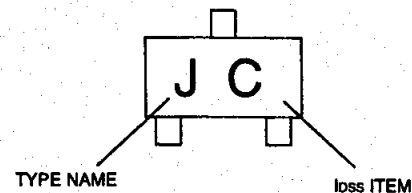
EIAJ : SC-59

JEDEC : TO-236 resemblance

Note)

The dimension without tolerance represent central value.

MARKING



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

Symbol	Parameter	Ratings	Unit
V_{GDO}	Gate to Drain voltage	50	V
I_G	Gate Current	-10	mA
P_T	Total allowable dissipation ($T_a = 25^\circ\text{C}$)	150	mW
T_{ch}	Channel temperature	+125	$^\circ\text{C}$
T_{stg}	Storage temperature	-55 to +125	$^\circ\text{C}$

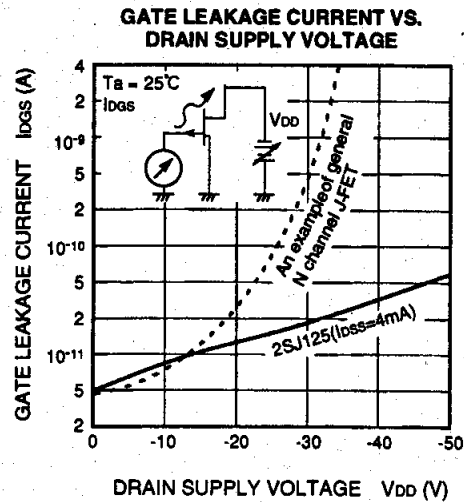
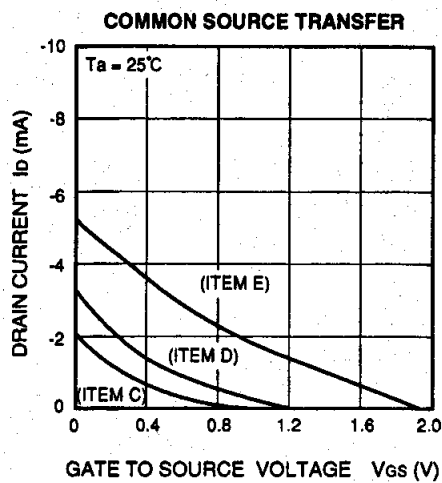
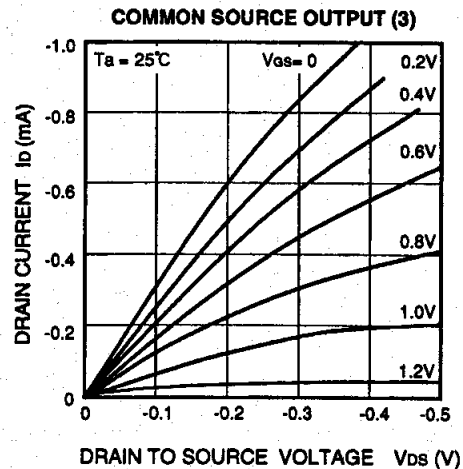
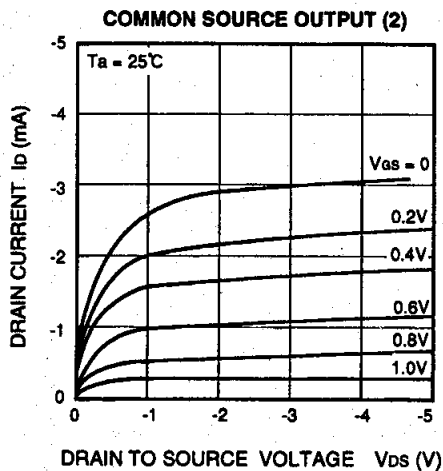
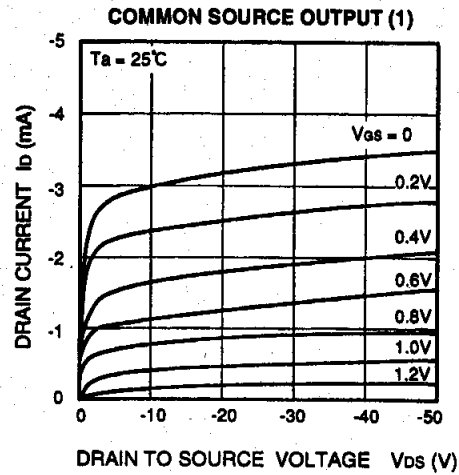
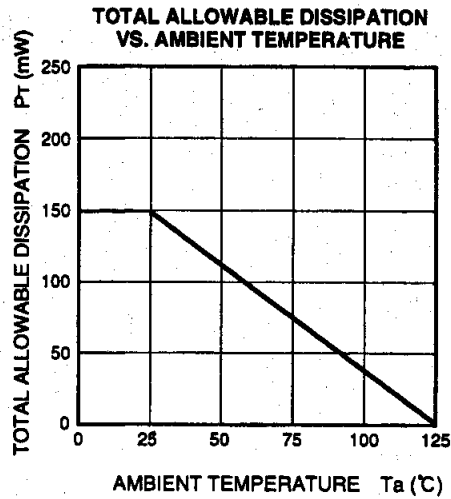
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

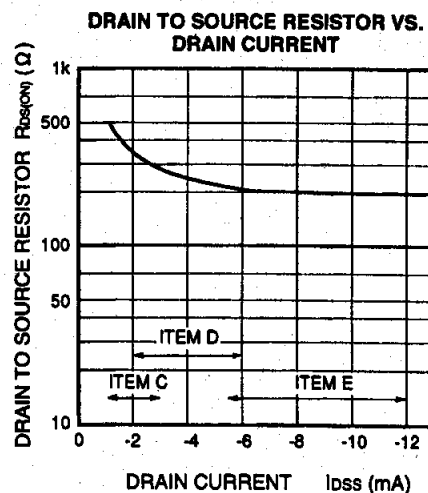
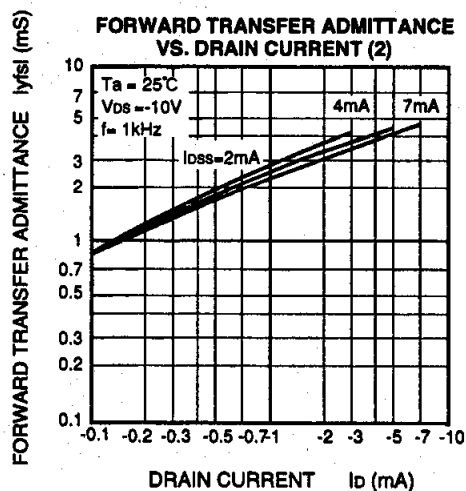
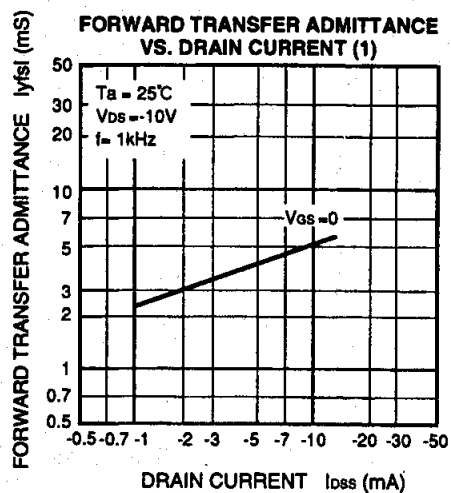
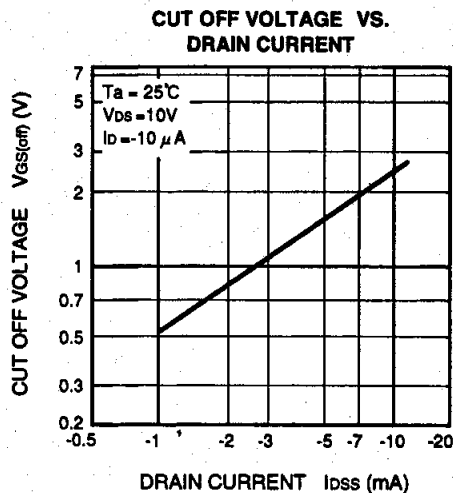
Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)GDO}$	G to D break down voltage	$I_G = 10\ \mu\text{A}$, $I_S = 0$	50			V
I_{GSS}	Gate leakage current	$V_{GS} = 30\text{V}$, $V_{DS} = 0$			1	nA
I_{DSS}^*	Drain current	$V_{DS} = -10\text{V}$, $V_{GS} = 0$	-1.0	-4.0	-12	mA
$V_{GS(off)}$	Cut off voltage	$V_{DS} = -10\text{V}$, $I_D = -10\ \mu\text{A}$	0.3	1.5	6.0	V
$ y_{fs} $	Forward transfer admittance	$V_{DS} = -10\text{V}$, $V_{GS} = 0$, $f = 1\text{kHz}$	1.5	4.0		mS
C_{iss}	Input capacitance	$V_{DS} = -10\text{V}$, $V_{GS} = 0$, $f = 1\text{MHz}$		18		pF
$R_{DS(ON)}$	Drain to source resistor	$V_{DS} = 10\text{mVrms}$ (1kHz), $V_{GS} = 0$, $I_{DSS} = 5\text{mA}$		220		Ω

* : It shows loss classification in right table.

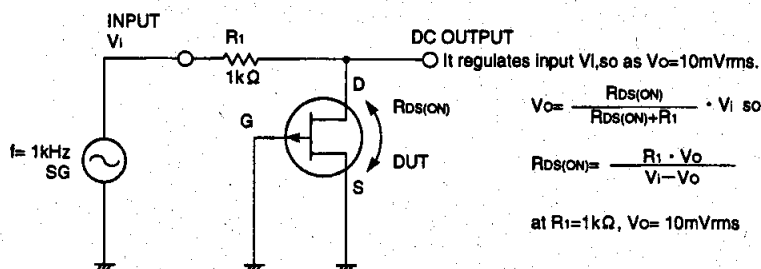
Item	C	D	E
I_{DSS} (mA)	1.0 to 3.0	2.5 to 6.0	5.0 to 12

TYPICAL CHARACTERISTICS





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





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