

〈FIELD-EFFECT TRANSISTOR〉

**2SJ145**

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

**DESCRIPTION**

2SJ145 is a small type resin sealed P channel junction type FET. It is especially designed for low frequency voltage amplify, analog switch application.

**FEATURE**

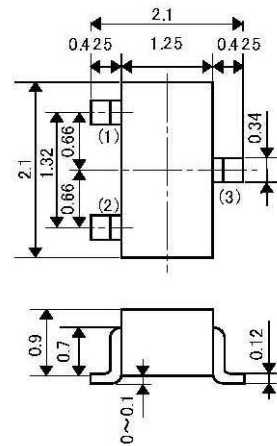
- Small type for mounting.
- High  $|y_{fs}|$   $|y_{fs}| = 4\text{mS (typ)}$
- Low  $R_{DS(ON)}$   $R_{DS(ON)} = 220\Omega$

**APPLICATION**

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

**OUTLINE DRAWING**

Unit:mm

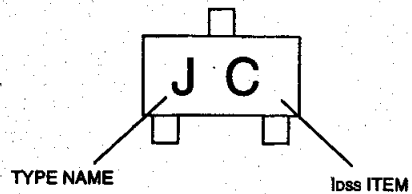


**TERMINAL CONNECTOR**

- ① : SOURCE
  - ② : DRAIN
  - ③ : GATE
- EIAJ : SC-70

Note)  
The dimension without tolerance represent central value.

**MARKING**



**MAXIMUM RATINGS (Ta=25°C)**

Symbol	Parameter	Rating	Unit
V <sub>GD0</sub>	Gate to Drain voltage	50	V
I <sub>g</sub>	Gate Current	-10	mA
P <sub>T</sub>	Total allowable dissipation (Ta = 25 °C)	150	mW
T <sub>ch</sub>	Channel temperature	+125	°C
T <sub>stg</sub>	Storage temperature	-55 to +125	°C

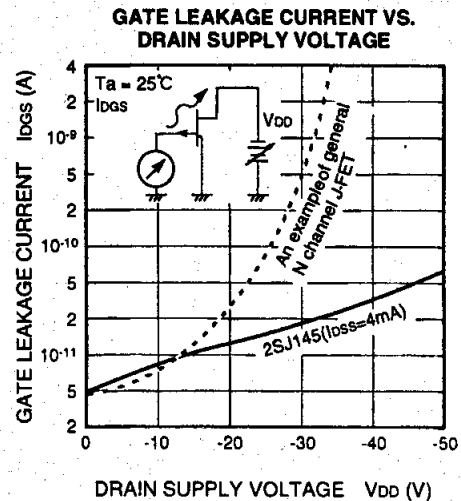
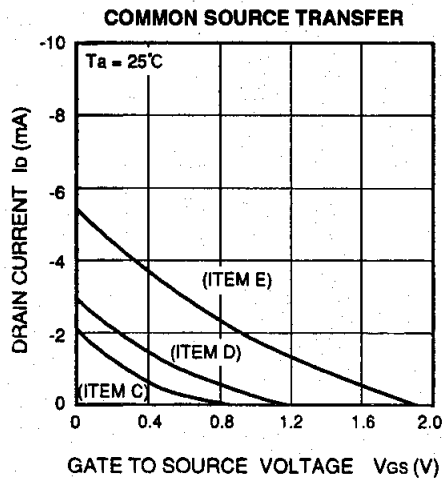
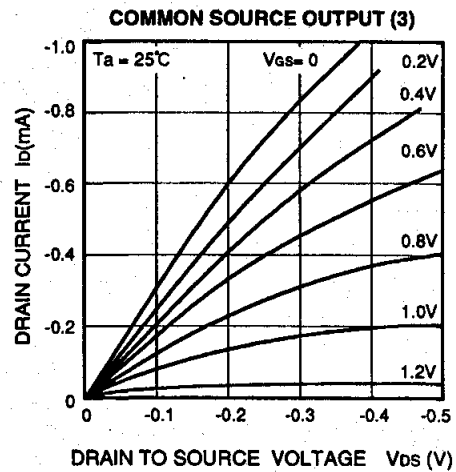
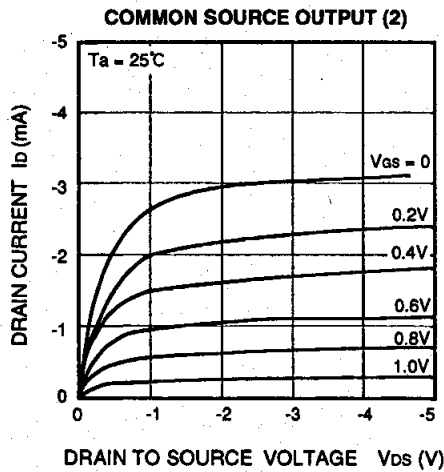
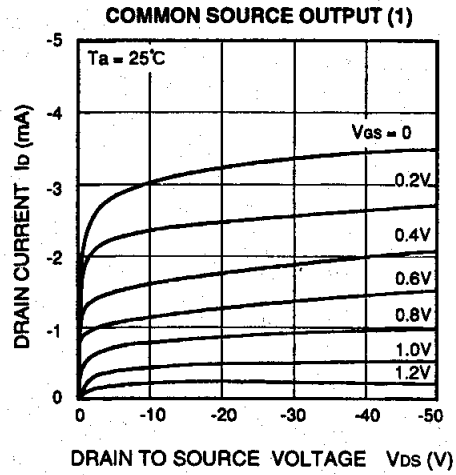
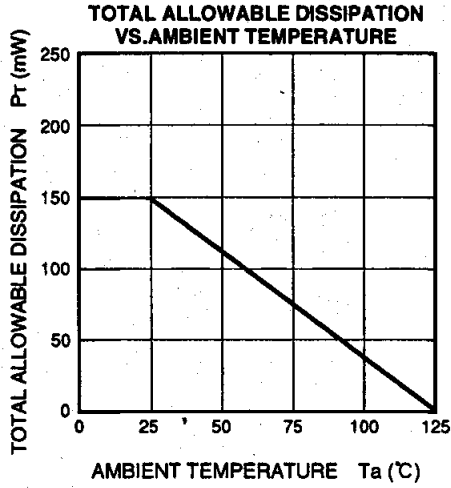
**ELECTRICAL CHARACTERISTICS (Ta=25°C)**

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
V <sub>(BR)GDO</sub>	G to D break down voltage	I <sub>g</sub> = 10 μA, I <sub>s</sub> = 0	50			V
I <sub>gss</sub>	Gate leakage current	V <sub>gs</sub> = 30V, V <sub>ds</sub> = 0			1	nA
I <sub>DSS *</sub>	Drain current	V <sub>ds</sub> = -10V, V <sub>gs</sub> = 0	-1.0	-4.0	-12	mA
V <sub>GS (off)</sub>	Cut off voltage	V <sub>ds</sub> = -10V, I <sub>D</sub> = -10 μA	0.3	1.5	6.0	V
y <sub>fs</sub>	Forward transfer admittance	V <sub>ds</sub> = -10V, V <sub>gs</sub> = 0, f = 1kHz	1.5	4.0		mS
C <sub>iss</sub>	Input capacitance	V <sub>ds</sub> = -10V, V <sub>gs</sub> = 0, f = 1MHz		18		pF
R <sub>DS(ON)</sub>	Drain to source resistor	V <sub>ds</sub> = 10mVrms(1kHz), V <sub>gs</sub> = 0, I <sub>DSS</sub> = 5mA		220		Ω

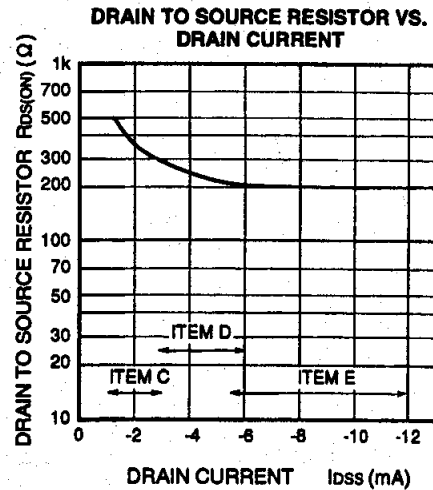
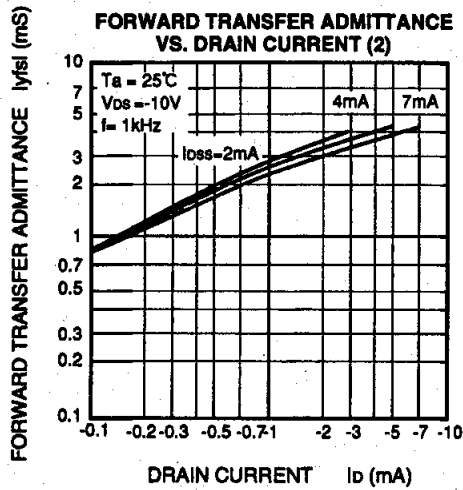
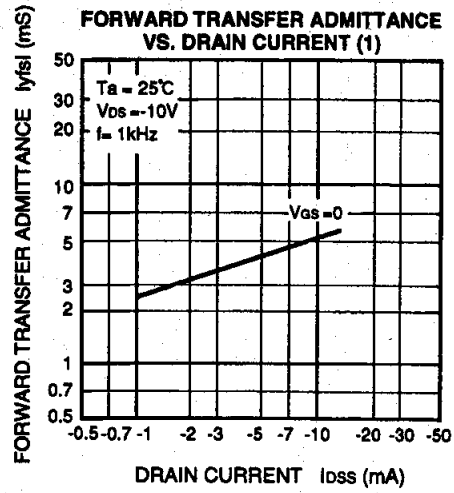
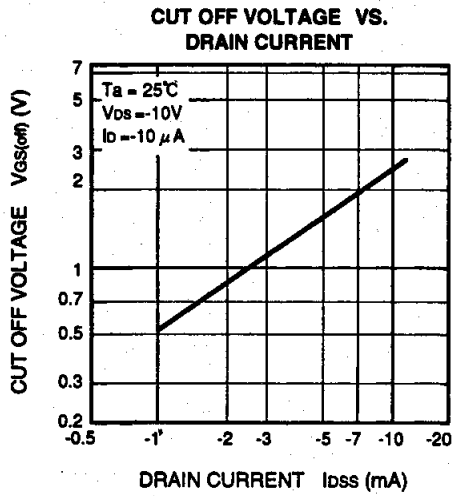
\* : It shows I<sub>DSS</sub> classification in right table.

Item	C	D	E
I <sub>DSS</sub>	1.0 to 3.0	2.5 to 6.0	5.0 to 12

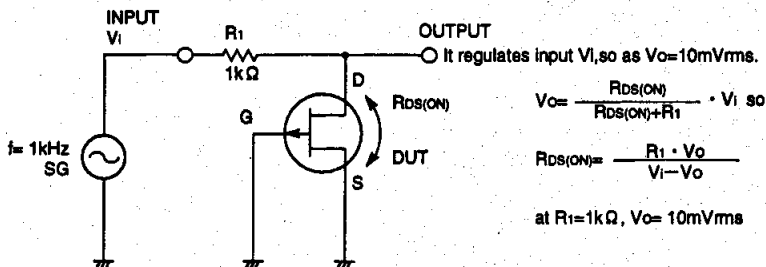
**TYPICAL CHARACTERISTICS**



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



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



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