

# DESCRIPTION

2SK492 is a super mini outline resin sealed silicon N channel junction type FET. It is designed for low frequency voltage amplify,application and analog switch application.

# FEATURE

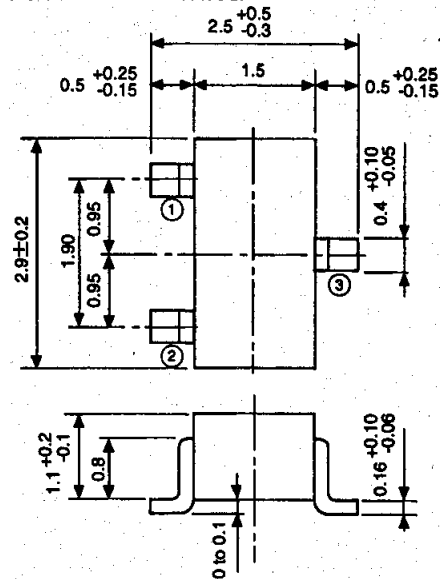
- Small type for mounting
- High  $|y_{fs}|$   $|y_{fs}|=8\text{mS}(\text{typ})$
- Low  $R_{DS(ON)}$   $R_{DS(ON)}=70\Omega$  typ

# 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

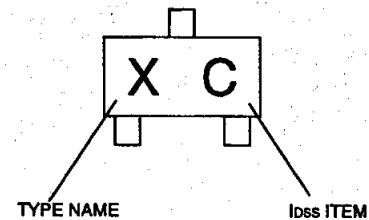
EIAJ : SC-59

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   |

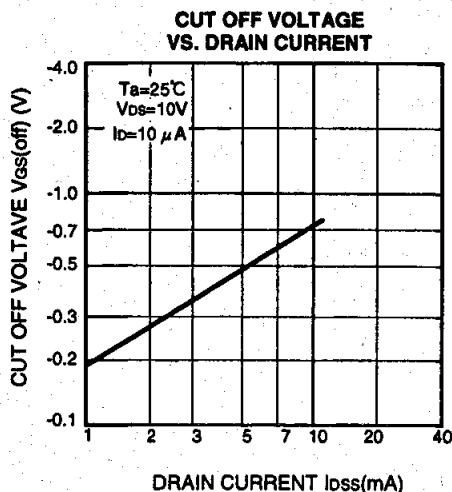
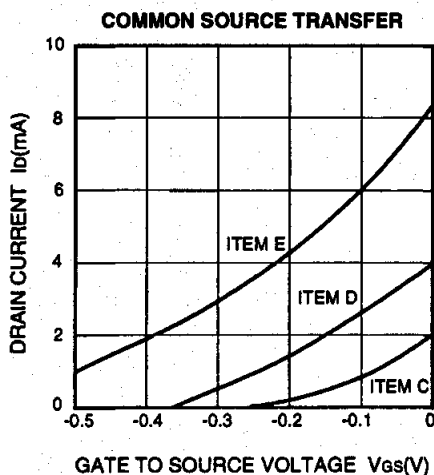
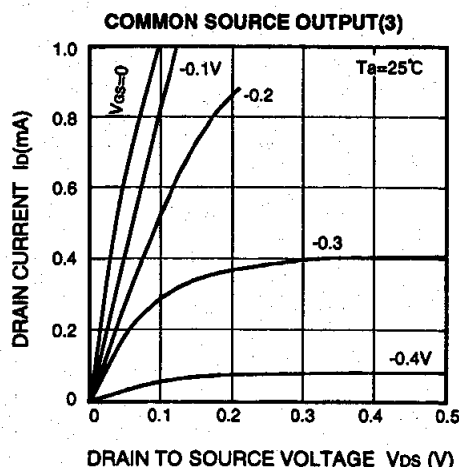
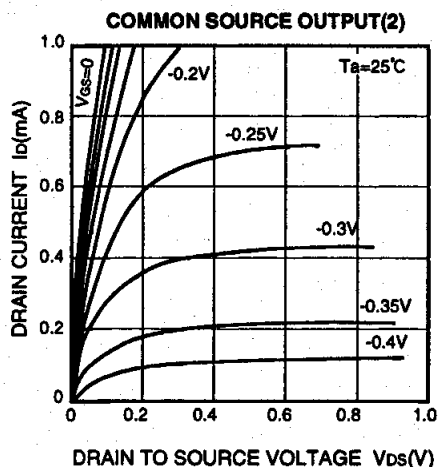
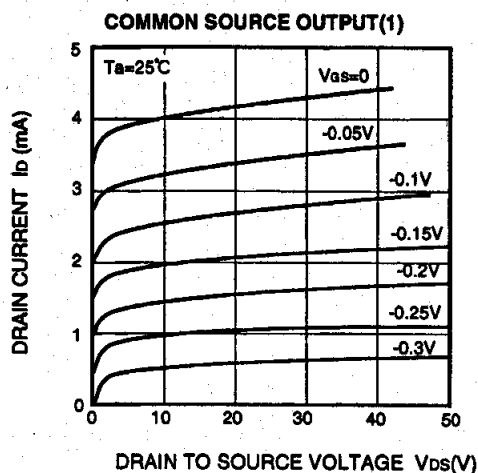
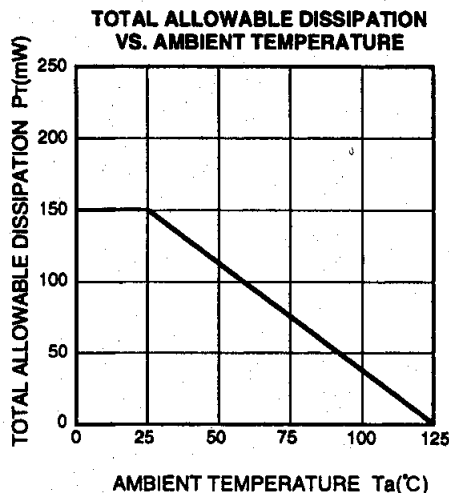
# ELECTRICAL CHARACTERISTICS (Ta=25°C)

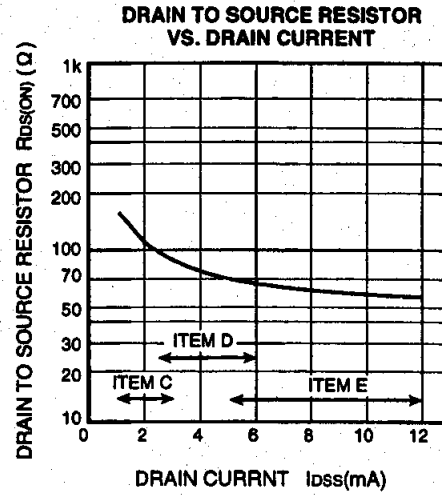
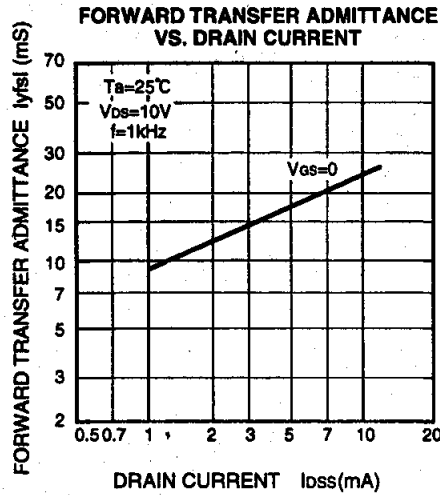
| Symbol        | Parameter                   | Test conditions                                                    | Limits |     |      | Unit     |
|---------------|-----------------------------|--------------------------------------------------------------------|--------|-----|------|----------|
|               |                             |                                                                    | Min    | Typ | Max  |          |
| $I_{SS}$      | Gate leakage current        | $V_{GS}=-30V, V_{DS}=0$                                            |        |     | -1   | nA       |
| $I_{DSS}^*$   | Drain current               | $V_{DS}=10V, V_{GS}=0$                                             | 1      | 4   | 12   | mA       |
| $V_{GS(off)}$ | Cut off voltage             | $V_{DS}=10V, I_D=10\mu A$                                          | -0.1   |     | -2.0 | V        |
| $ y_{fs} $    | Forward transfer admittance | $V_{DS}=10V, V_{GS}=0, f=1\text{kHz}$                              | 6.0    | 15  |      | mS       |
| $ y_{fs} $    | Forward transfer admittance | $V_{DS}=10V, I_D=1\text{mA}, f=1\text{kHz}$                        |        | 8   |      | mS       |
| $ y_{os} $    | Output admittance           | $V_{DS}=10V, I_D=1\text{mA}, f=1\text{kHz}$                        |        | 10  |      | $\mu S$  |
| $C_{iss}$     | Input capacitance           | $V_{DS}=10V, V_{GS}=0, f=1\text{MHz}$                              |        | 20  |      | pF       |
| NF            | Noise figure                | $V_{DS}=10V, I_D=1\text{mA}, f=100\text{Hz}, R_G=1\text{k}\Omega$  |        | 1.0 |      | 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  |      | $\Omega$ |

\* : It shows  $I_{SS}$  classification in right table.

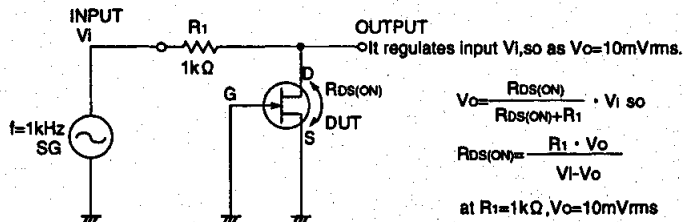
| Item      | C          | D          | E         |
|-----------|------------|------------|-----------|
| $I_{DSS}$ | 1.0 to 3.0 | 2.5 to 6.0 | 5.0 to 12 |

TYPICAL CHARACTERISTICS





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





<http://www.idc-com.co.jp>  
6-41, TSUKUBA, ISAHAYA, NAGASAKI, 854-0065, JAPAN

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