

(FIELD-EFFECT TRANSISTOR)

**2SK492**

FOR LOW FREQUENCY AMPLIFY APPLICATION  
N CHANNEL JUNCTION TYPE

**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**

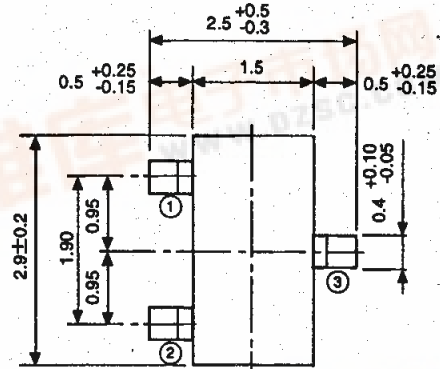
- Small type for mounting
- High  $|y_{fs}|$   $|y_{fs}|=8\text{mS}(\text{typ})$
- Low  $R_{DS(ON)}$   $R_{DS(ON)}=70\Omega$  typ

**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

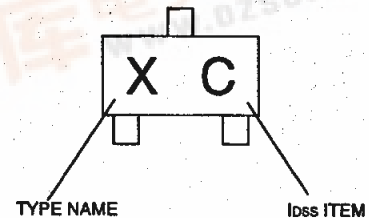
EIAJ : SC-59

JEDEC : TO-236 resemblance

Note)

The dimension without tolerance represent central value.

**MARKING**



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

Symbol	Parameter	Ratings	Unit
$V_{GD0}$	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	
$I_{gss}$	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	4	12	mA
$V_{GS(off)}$	Cut off voltage	$V_{DS}=10\text{V}, I_D=10\mu\text{A}$	-0.1		-2.0	V
$ y_{fs} $	Forward transfer admittance	$V_{DS}=10\text{V}, V_{GS}=0, f=1\text{kHz}$	6.0	15		mS
$ y_{fs} $	Forward transfer admittance	$V_{DS}=10\text{V}, I_D=1\text{mA}, f=1\text{kHz}$		8		mS
$ y_{os} $	Output admittance	$V_{DS}=10\text{V}, I_D=1\text{mA}, f=1\text{kHz}$		10		$\mu\text{S}$
$C_{iss}$	Input capacitance	$V_{DS}=10\text{V}, V_{GS}=0, f=1\text{MHz}$		20		pF
NF	Noise figure	$V_{DS}=10\text{V}, I_D=1\text{mA}, f=100\text{Hz}, R_G=1\text{k}\Omega$		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  $I_{DSS}$  classification in right table.

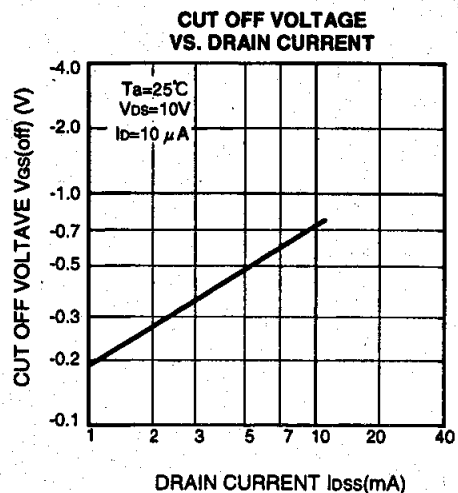
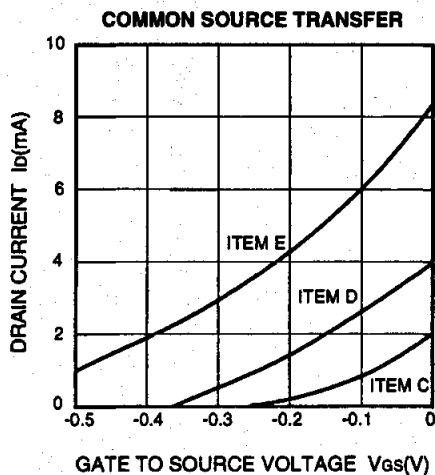
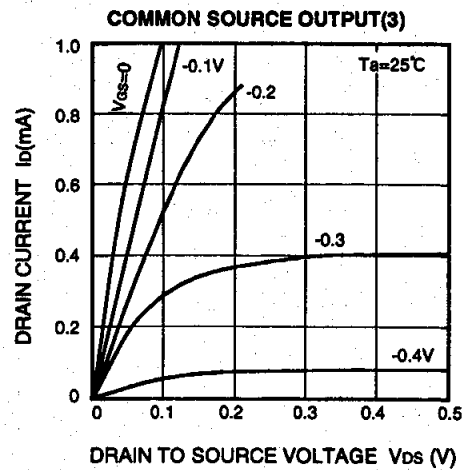
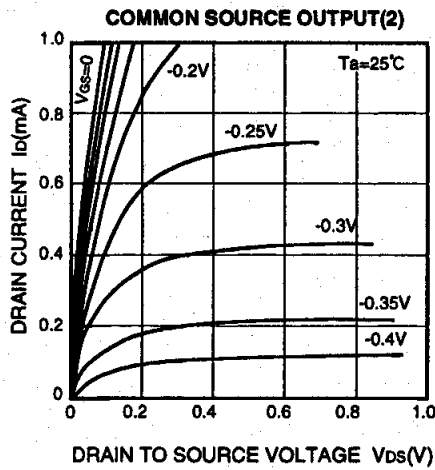
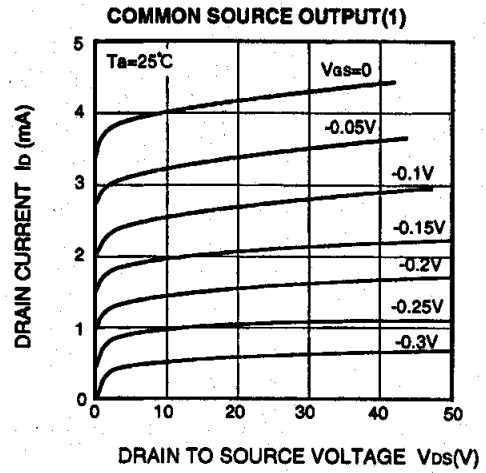
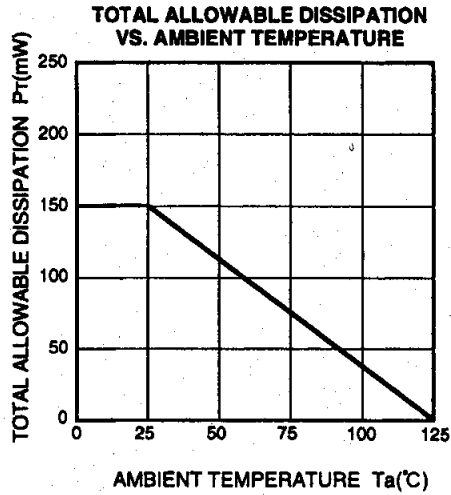
Item	C	D	E
$I_{DSS}$	1.0 to 3.0	2.5 to 6.0	5.0 to 12



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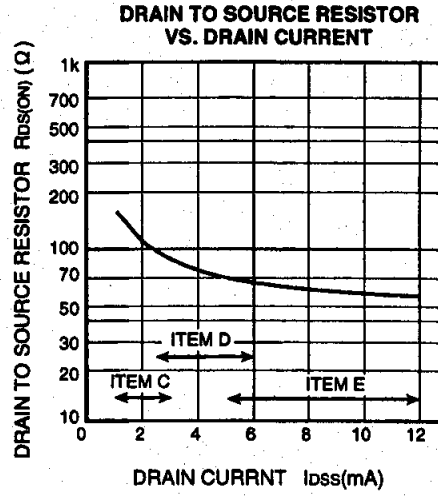
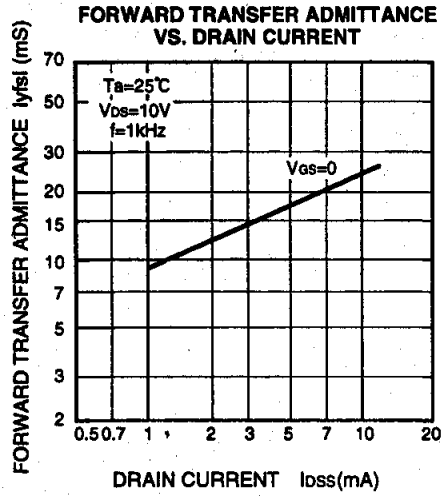
**TYPICAL CHARACTERISTICS**



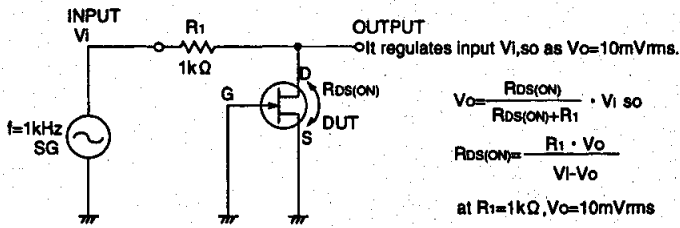
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**DRAIN TO SOURCE RESISTOR  $R_{ds(ON)}$  TEST CIRCUIT**



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