

**PRELIMINARY**  
 Notices: This is not a final specification.  
 Some parametric limits are subject to change.

FIELD-EFFECT TRANSISTOR

# 2SK3536

ELECTRET CONDENSER MICROPHONE APPLICATION  
 N CHANNEL JUNCTION TYPE

## DESCRIPTION

2SK3536 is a super mini package resin sealed silicon N channel junction type FET.

Since excellent transient characteristics, high  $|Y_{fs}|$  and a super-thin flat lead type package, it is the optimum as an electret condenser microphone use.

## FEATURE

- Super-thin flat lead type package.  
 $t=0.45\text{mm}$
- High  $|Y_{fs}|$
- Excellent transient characteristics

## APPLICATION

Electret condenser microphone application

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

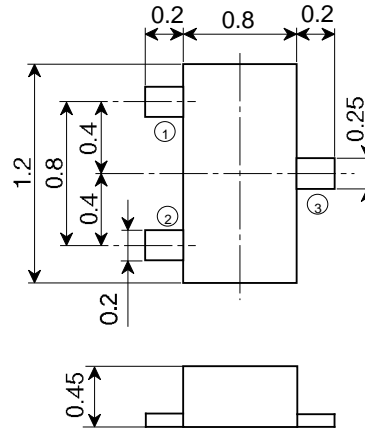
Symbol	Parameter	Ratings	Unit
$V_{DS}$	Drain to Source Voltage	20	V
$V_{GD}$	Gate to Drain Voltage	-20	V
$I_D$	Drain Current	10	mA
$I_G$	Gate Current	10	mA
$P_T$	Total allowable dissipation( $T_a=25^\circ\text{C}$ )		mW
$T_{ch}$	Channel temperature	+125	
$T_{stg}$	Storage temperature	-55 ~ +125	

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

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$I_{DSS}$	Drain current	$V_{DS}=5\text{V}, V_{GS}=0\text{V}$	40		600	$\mu\text{A}$
$V_{GS(OFF)}$	Cut off voltage	$V_{DS}=5\text{V}, I_D=1.0\mu\text{A}$	-0.1		-1.0	V
$ Y_{fs} $	Forward transfer admittance	$V_{DS}=5\text{V}, V_{GS}=0\text{V}, f=1\text{KHz}$	350			$\mu\text{S}$
$C_{iss}$	Input capacitance	$V_{DS}=5\text{V}, V_{GS}=0\text{V}, f=1\text{MHz}$		7.0		pF
NV	Noise voltage			1.8	3.0	$\mu\text{V}$

## OUTLINE DRAWING

Unit:mm



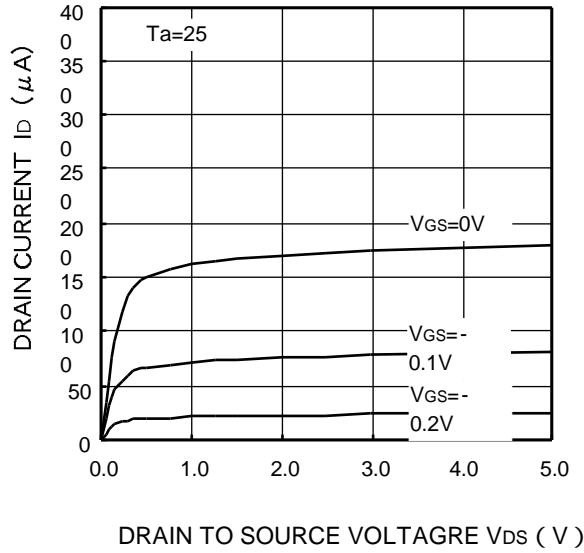
## TERMINAL CONNECTOR

- ① : DRAIN  
 ② : SOURCE  
 ③ : GATE
- JEITA :

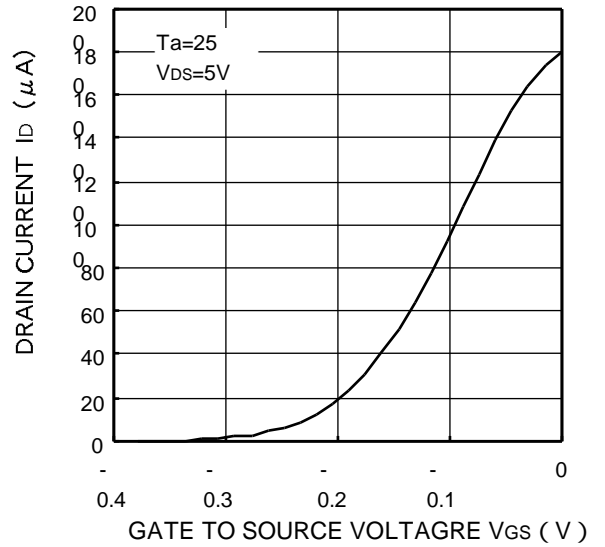
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N CHANNEL JUNCTION TYPE

COMMON SOURCE OUTPUT

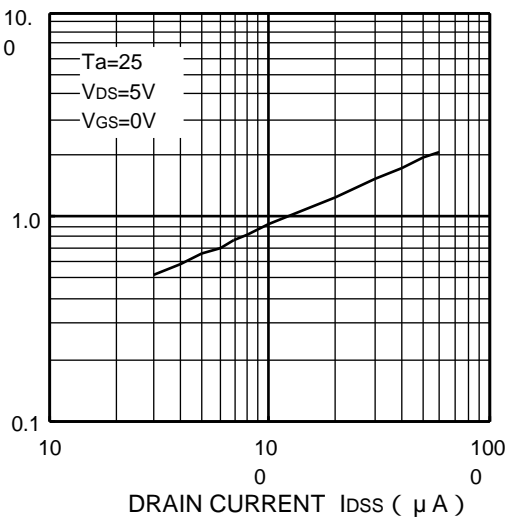


COMMON SOURCE TRANSFER

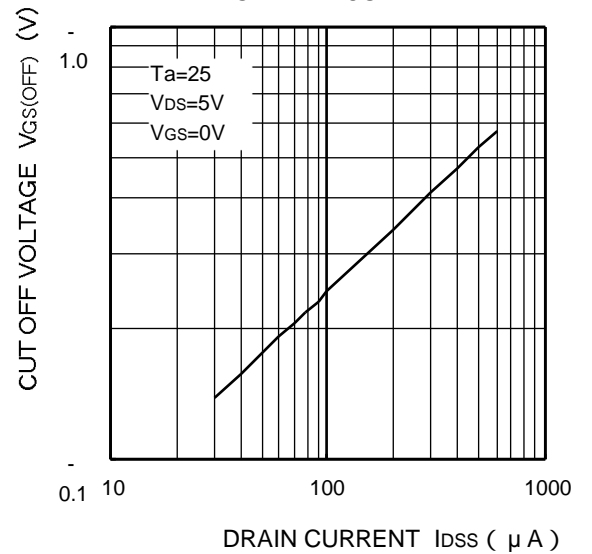


FORWARD TRANSFER ADMITTANCE |  $Y_{fs}$  | (mS)

FORWARD TRANSFER ADMITTANCE VS. DRAIN CURRENT



CUT OFF VOLTAGE VS. DRAIN CURRENT





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