

# 2SK3426

## Silicon N-Channel Junction FET

For impedance conversion in low frequency

For electret capacitor microphone

### ■ Features

- High mutual conductance  $g_m$
- Low noise voltage NV

### ■ Package

- Code  
SSSMINI3-F1

### • Pin Name

- 1: Drain
- 2: Source
- 3: Gate

### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Drain-source voltage (Gate open)	$V_{DSO}$	20	V
Drain-gate voltage (Source open)	$V_{DGO}$	20	V
Drain-source current (Gate open)	$I_{DSO}$	2	mA
Drain-gate current (Source open)	$I_{DGO}$	2	mA
Gate-source current (Drain open)	$I_{GSO}$	2	mA
Power dissipation	$P_D$	100	mW
Operating ambient temperature	$T_{opr}$	-20 to +80	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$

### ■ Marking Symbol: 4E

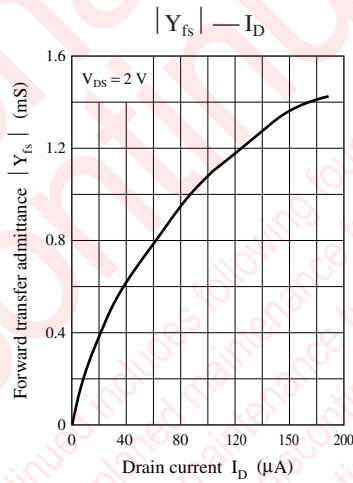
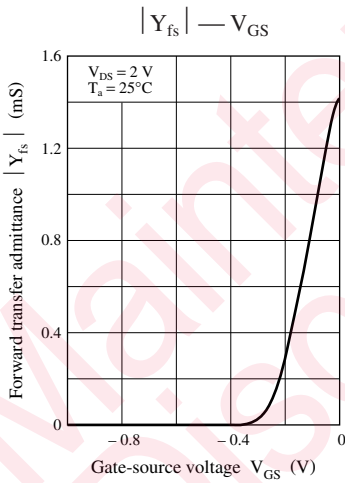
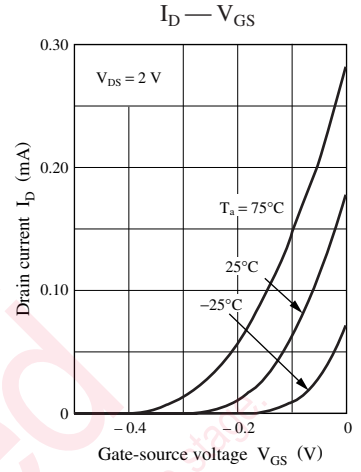
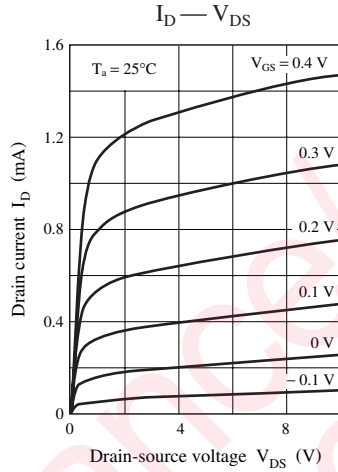
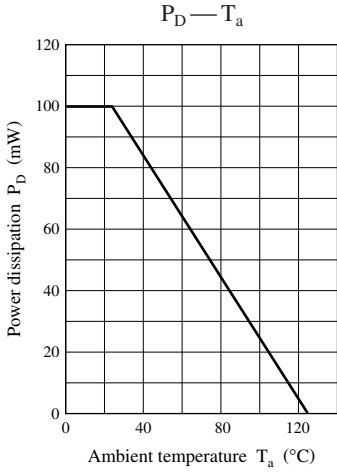
### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Drain current *1	$I_D$	$V_{DS} = 2.0\text{ V}$ , $R_D = 2.2\text{ k}\Omega \pm 1\%$	100		460	$\mu\text{A}$
Drain-source current	$I_{DSS}$	$V_{DS} = 2.0\text{ V}$ , $R_D = 2.2\text{ k}\Omega \pm 1\%$ , $V_{GS} = 0$	107		470	$\mu\text{A}$
Mutual conductance	$g_m$	$V_D = 2.0\text{ V}$ , $V_{GS} = 0$ , $f = 1\text{ kHz}$	660	1600		$\mu\text{S}$
Noise voltage	NV	$V_D = 2.0\text{ V}$ , $R_D = 2.2\text{ k}\Omega \pm 1\%$ $C_O = 5\text{ pF}$ , A-Curve			10	$\mu\text{V}$
Voltage gain	$G_{V1}$	$V_D = 2.0\text{ V}$ , $R_D = 2.2\text{ k}\Omega \pm 1\%$ $C_O = 5\text{ pF}$ , $e_G = 10\text{ mV}$ , $f = 1\text{ kHz}$	-7.5	-4.7		dB
	$G_{V2}$	$V_D = 12\text{ V}$ , $R_D = 2.2\text{ k}\Omega \pm 1\%$ $C_O = 5\text{ pF}$ , $e_G = 10\text{ mV}$ , $f = 1\text{ kHz}$	-4.0	-1.5		
	$G_{V3}$	$V_D = 1.5\text{ V}$ , $R_D = 2.2\text{ k}\Omega \pm 1\%$ $C_O = 5\text{ pF}$ , $e_G = 10\text{ mV}$ , $f = 1\text{ kHz}$	-8.0	-5.0		
	$\Delta  G_V \cdot f $ *2	$V_D = 2.0\text{ V}$ , $R_D = 2.2\text{ k}\Omega \pm 1\%$ $C_O = 5\text{ pF}$ , $e_G = 10\text{ mV}$ , $f = 1\text{ kHz to } 70\text{ Hz}$		0	1.7	
Voltage gain difference	$ G_{V2} - G_{V1} $		0		4.0	dB
	$ G_{V1} - G_{V3} $		0		1.7	

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

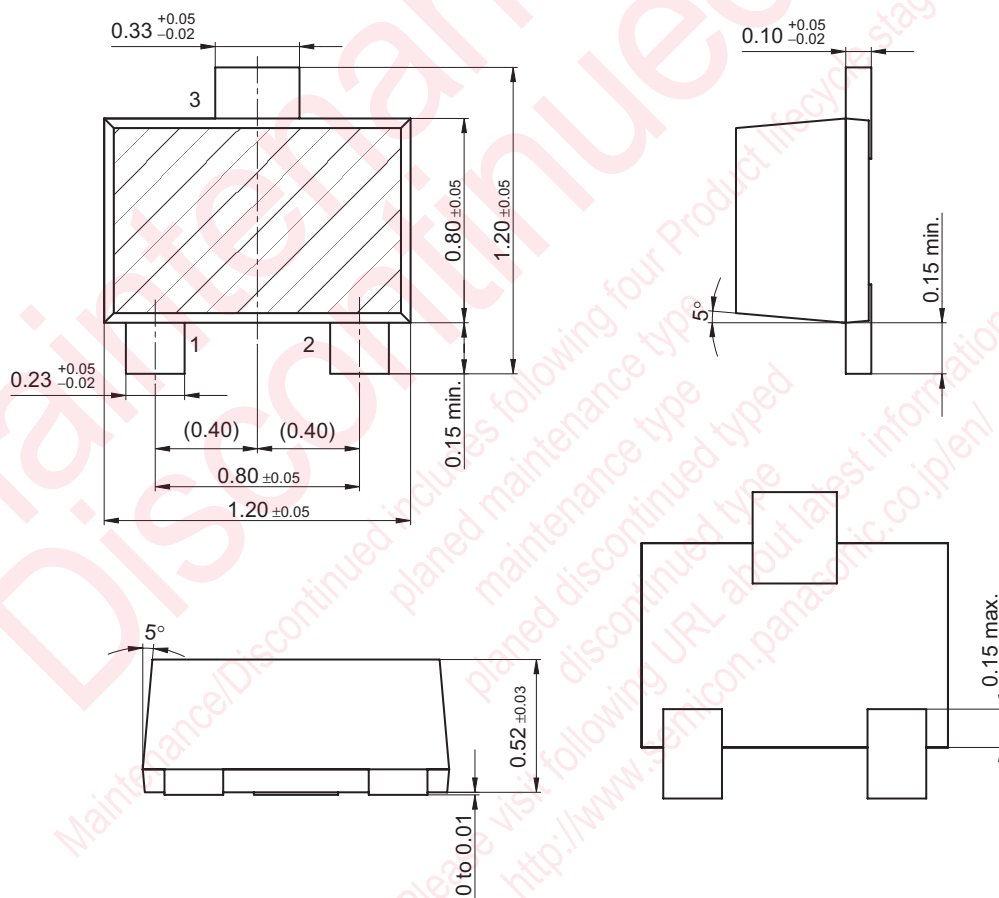
2. \*1:  $I_D$  is assured for  $I_{DSS}$ .

\*2:  $\Delta |G_V \cdot f|$  is assured for AQL 0.065%. (The measurement method is used by source-grounded circuit.)



SSSMini3-F1

Unit: mm



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