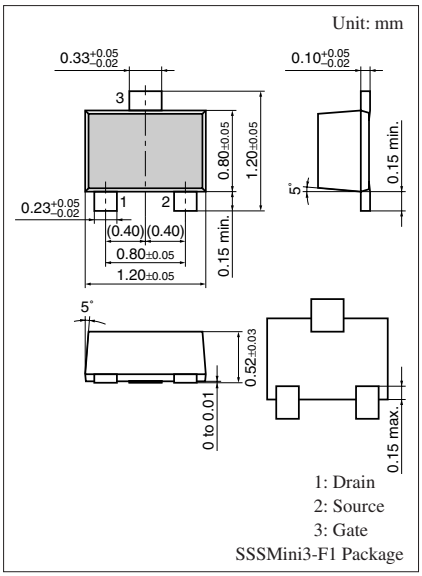
2SK3426

Silicon N-Channel Junction FET

For impedance conversion in low frequency
For electret capacitor microphone



Marking Symbol: 4E

■ Features

- High mutual conductance g_m
- Low noise voltage NV

■ Absolute Maximum Ratings $T_a = 25°C$

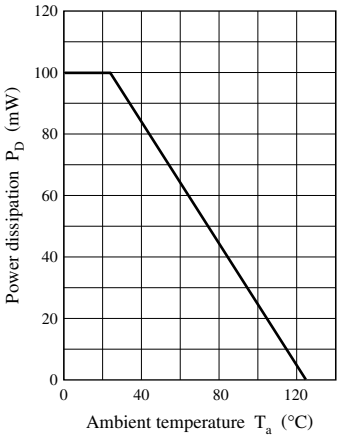
Parameter	Symbol	Rating	Unit
Drain-source voltage (Gate open)	V_{DSO}	20	V
Gate-drain voltage (Source open)	V_{GDO}	20	V
Drain-source current (Gate open)	I_{DSO}	2	mA
Gate-drain current (Source open)	I_{GDO}	2	mA
Gate-source current (Drain open)	I_{GSO}	2	mA
Power dissipation	P_D	100	mW
Operating ambient temperature	T_{opr}	−20 to +80	°C
Storage temperature	T_{stg}	−55 to +125	°C

■ Electrical Characteristics $T_a = 25°C \pm 3°C$

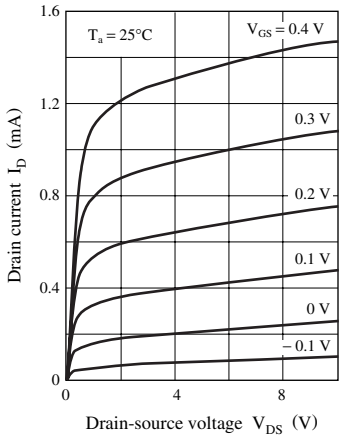
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Drain current *1	I_D	V_{DS} = 2.0 V, R_D = 2.2 kΩ ± 1%	100		330	μA
Drain-source cutoff current	I_{DSS}	V_{DS} = 2.0 V, R_D = 2.2 kΩ ± 1%, V_{GS} = 0	107		310	μA
Mutual conductance	g_m	V_D = 2.0 V, V_{GS} = 0, f = 1 kHz	660	1 300		μS
Noise voltage	NV	V_D = 2.0 V, R_D = 2.2 kΩ ± 1% C_O = 5 pF, A-Curve			8	μV
Voltage gain	G_{V1}	V_D = 2.0 V, R_D = 2.2 kΩ ± 1% C_O = 5 pF, e_G = 10 mV, f = 1 kHz	−8.5	−3.0		dB
	G_{V2}	V_D = 12 V, R_D = 2.2 kΩ ± 1% C_O = 5 pF, e_G = 10 mV, f = 1 kHz	−5.0	− 0.5		
	G_{V3}	V_D = 1.5 V, R_D = 2.2 kΩ ± 1% C_O = 5 pF, e_G = 10 mV, f = 1 kHz	−9.0	−3.5		
	$\Delta\lvert G_V.\ f\rvert$ *2	V_D = 2.0 V, R_D = 2.2 kΩ ± 1% C_O = 5 pF, e_G = 10 mV, f = 1 kHz to 70 Hz		0	1.5	
Voltage gain difference	$\Delta\lvert G_{V2} - G_{V1}\rvert$		0		4.0	dB
	$\Delta\lvert G_{V1} - G_{V3}\rvert$		0		1.5	

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

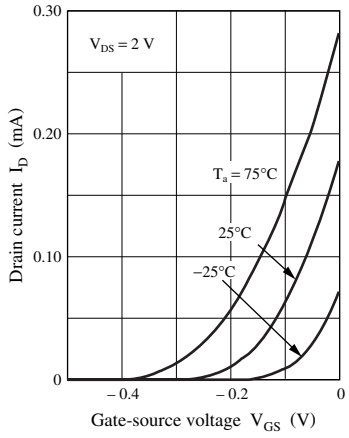
P_D — T_a



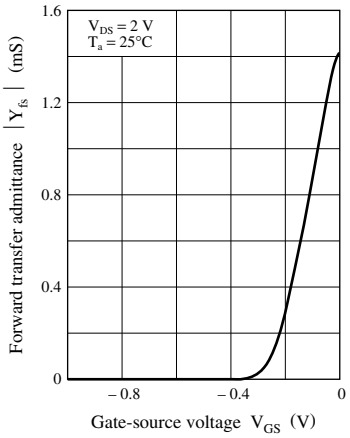
I_D — V_{DS}



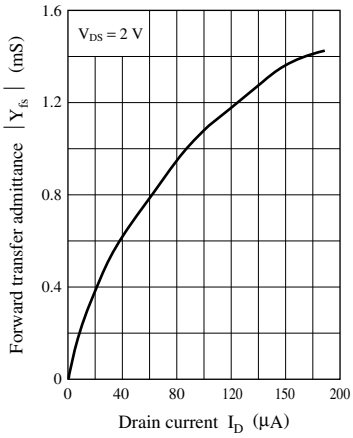
I_D — V_{GS}



$|Y_{fs}|$ — V_{GS}



$|Y_{fs}|$ — I_D



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