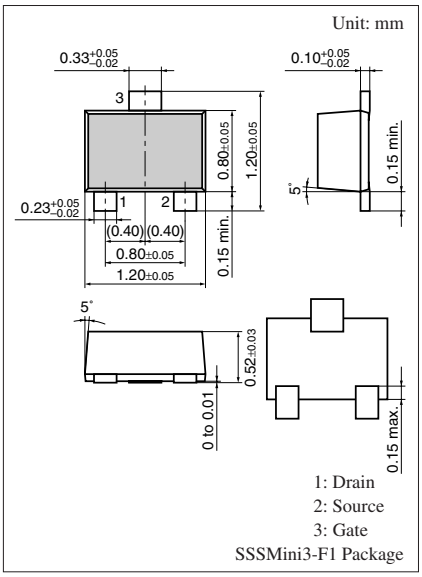
2SK3426

Silicon N-Channel Junction

For impedance conversion in low frequency
For electret capacitor microphone



Marking Symbol: 4E

■ Features

- High mutual conductance g_m
- Low noise voltage of NV

■ Absolute Maximum Ratings $T_a = 25°C$

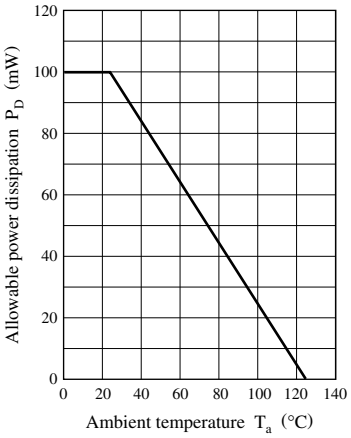
Parameter	Symbol	Rating	Unit
Drain-source voltage	V_{DSO}	20	V
Drain-gate voltage	V_{DGO}	20	V
Drain-source current	I_{DSO}	2	mA
Drain-gate current	I_{DGO}	2	mA
Gate-source current	I_{GSO}	2	mA
Allowable power dissipation	P_D	100	mW
Operating ambient temperature	T_{opr}	−20 to +80	°C
Storage temperature	T_{stg}	−55 to +125	°C

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

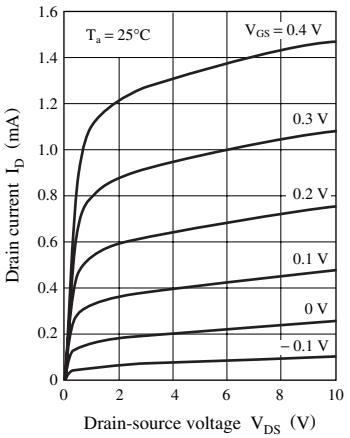
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Drain current	I_D *1	V_{DS} = 2.0 V, R_D = 2.2 kΩ ± 1%	100		330	μA
	I_{DSS}	V_{DS} = 2.0 V, R_D = 2.2 kΩ ± 1%, V_{GS} = 0	107		310	
Mutual conductance	g_m	V_D = 2.0 V, V_{GS} = 0, f = 1 kHz	660	1 300		μS
Noise voltage	NV	V_D = 2.0 V, R_D = 2.2 kΩ ± 1% C_O = 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	$\lvert G_{V2} - G_{V1}\rvert$		0		4.0	dB
	$\lvert G_{V1} - G_{V3}\rvert$		0		1.5	

Note) *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.)

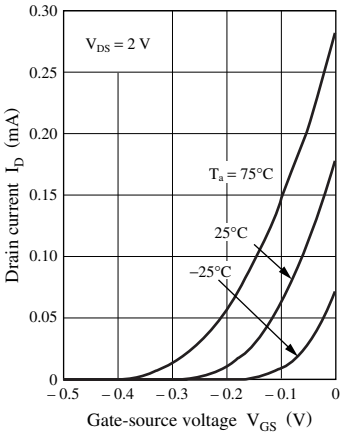
P_D — T_a



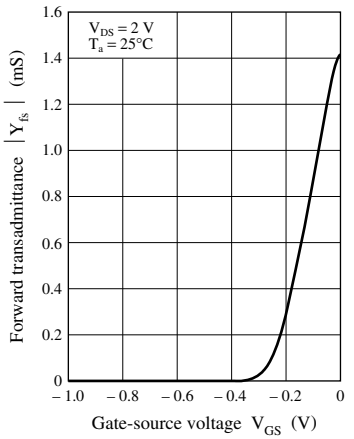
I_D — V_{DS}



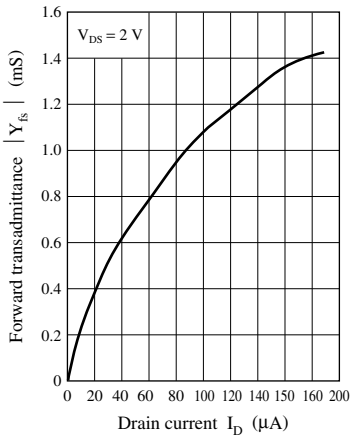
I_D — V_{GS}



$|Y_{fs}|$ — V_{GS}



$|Y_{fs}|$ — I_D



Request for your special attention and precautions in using the technical information and semiconductors described in this book

(1) An export permit needs to be obtained from the competent authorities of the Japanese Government if any of the products or technologies described in this book and controlled under the "Foreign Exchange and Foreign Trade Law" is to be exported or taken out of Japan.

(2) The technical information described in this book is limited to showing representative characteristics and applied circuits examples of the products. It neither warrants non-infringement of intellectual property right or any other rights owned by our company or a third party, nor grants any license.

(3) We are not liable for the infringement of rights owned by a third party arising out of the use of the product or technologies as described in this book.

(4) The products described in this book are intended to be used for standard applications or general electronic equipment (such as office equipment, communications equipment, measuring instruments and household appliances).
Consult our sales staff in advance for information on the following applications:
- Special applications (such as for airplanes, aerospace, automobiles, traffic control equipment, combustion equipment, life support systems and safety devices) in which exceptional quality and reliability are required, or if the failure or malfunction of the products may directly jeopardize life or harm the human body.
- Any applications other than the standard applications intended.

(5) The products and product specifications described in this book are subject to change without notice for modification and/or improvement. At the final stage of your design, purchasing, or use of the products, therefore, ask for the most up-to-date Product Standards in advance to make sure that the latest specifications satisfy your requirements.

(6) When designing your equipment, comply with the guaranteed values, in particular those of maximum rating, the range of operating power supply voltage, and heat radiation characteristics. Otherwise, we will not be liable for any defect which may arise later in your equipment.
Even when the products are used within the guaranteed values, take into the consideration of incidence of break down and failure mode, possible to occur to semiconductor products. Measures on the systems such as redundant design, arresting the spread of fire or preventing glitch are recommended in order to prevent physical injury, fire, social damages, for example, by using the products.

(7) When using products for which damp-proof packing is required, observe the conditions (including shelf life and amount of time let standing of unsealed items) agreed upon when specification sheets are individually exchanged.

2002 MAY

littlediode
COMPONENTS FOR ALL

Littlediode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.