

# 2SK0065 (2SK65)

## Silicon N-Channel Junction FET

For impedance conversion in low frequency

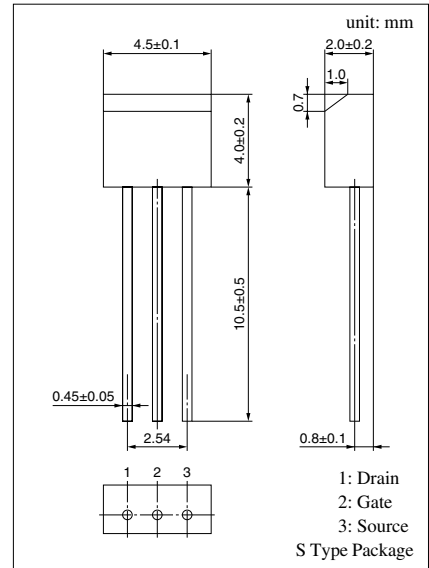
For electret capacitor microphone

### ■ Features

- Diode is connected between gate and source
- Low noise voltage

### ■ Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Ratings	Unit
Drain to Source voltage	$V_{DSO}$	12	V
Gate to Drain voltage	$V_{GDO}$	-12	V
Drain to Source current	$I_{DSO}$	2	mA
Drain to Gate current	$I_{DGO}$	2	mA
Gate to Source current	$I_{GSO}$	2	mA
Allowable power dissipation	$P_D$	20	mW
Operating ambient temperature	$T_{opr}$	-10 to +70	°C
Storage temperature	$T_{stg}$	-20 to +150	°C



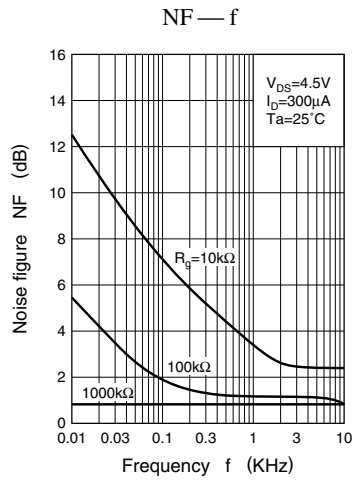
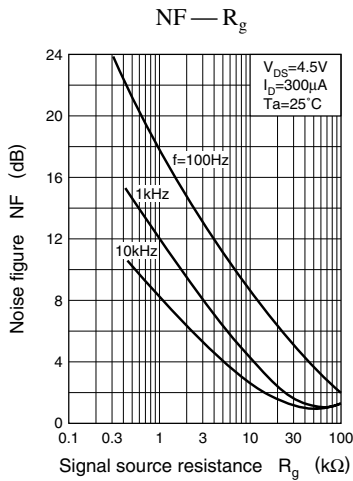
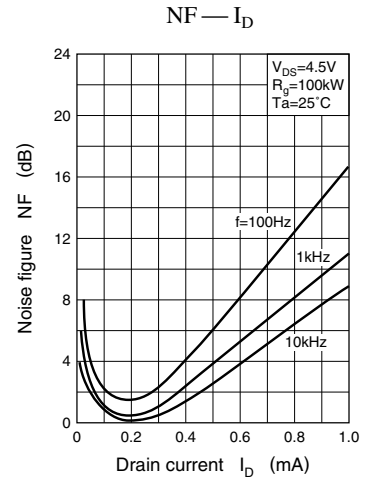
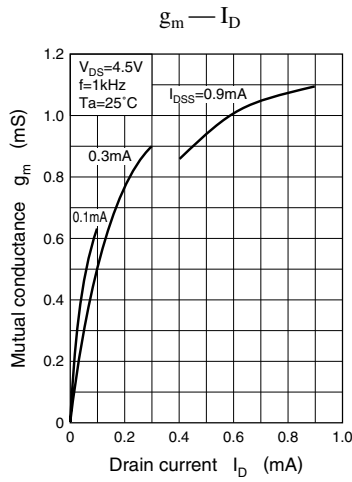
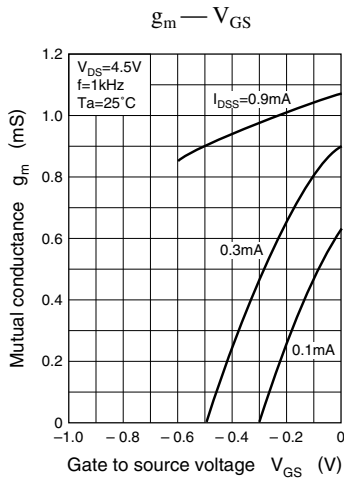
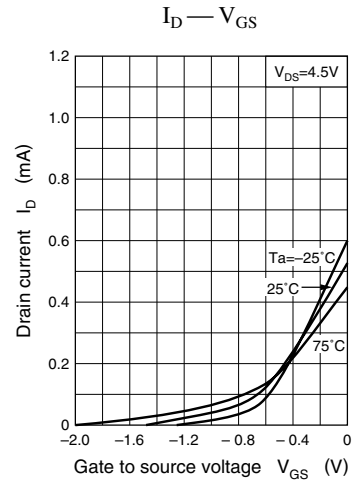
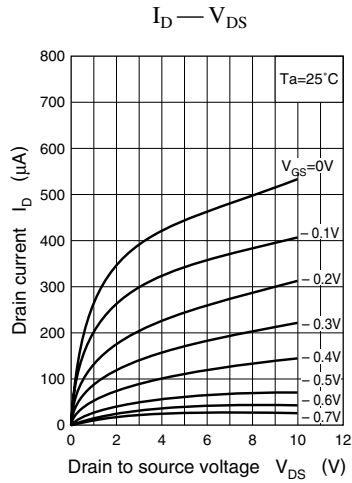
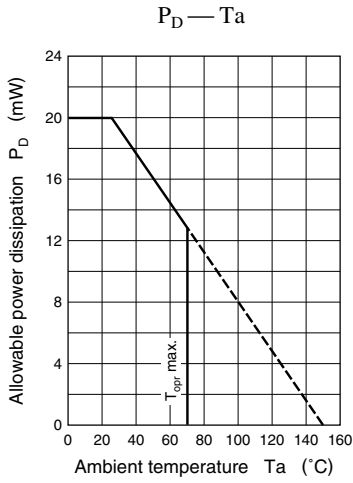
### ■ Electrical Characteristics (Ta = 25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Drain to Source cut-off current	$I_{DSS}^*$	$V_{DS} = 4.5V, V_{GS} = 0, R_S = 2.2k\Omega \pm 1\%$	0.04		0.8	mA
Mutual conductance	$g_m$	$V_{DS} = 4.5V, V_{GS} = 0$ $R_S = 2.2k\Omega \pm 1\%, f = 1kHz$	300	500		$\mu S$
Noise figure	NV	$V_{DS} = 4.5V, R_S = 2.2k\Omega \pm 1\%$ $C_G = 10pF, A\text{-curve}$			4	$\mu V$
Voltage gain	$G_{V1}^*$	$V_{DS} = 4.5V, R_S = 2.2k\Omega \pm 1\%$ $C_G = 10pF, e_G = 100mV, f = 70Hz$		-10		dB
	$G_{V2}^*$	$V_{DS} = 12V, R_S = 2.2k\Omega \pm 1\%$ $C_G = 10pF, e_G = 100mV, f = 70Hz$		-9.5		dB
	$G_{V3}^*$	$V_{DS} = 1V, R_S = 2.2k\Omega \pm 1\%$ $C_G = 10pF, e_G = 100mV, f = 70Hz$		-11		dB

\*  $I_{DSS}$  rank classification and  $G_V$  value

Rank	P	Q
$I_{DSS}$ (mA)	0.04 to 0.2	0.15 to 0.8
$G_{V1}$ (dB)	> -13	> -12
$G_{V2}$ (dB)	> -12	> -11
$\Delta  G_{V1} - G_{V2} $ (dB)	< 3	< 3

Note) The part number in the parenthesis shows conventional part number.



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