

2SK65

Silicon N-Channel Junction FET

For impedance conversion in low frequency

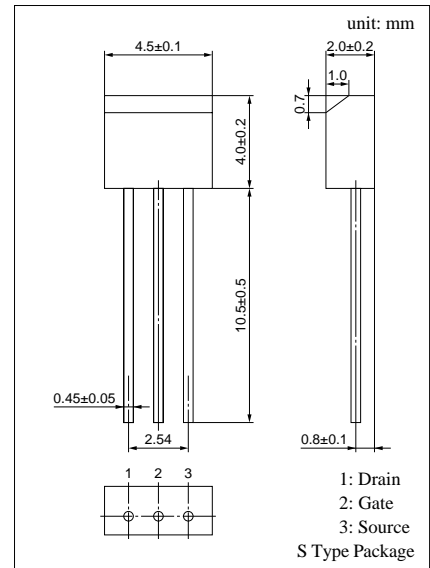
For electret capacitor microphone

■ Features

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

■ Absolute Maximum Ratings (T_a = 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 (T_a = 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 = 2.2kΩ ± 1%	0.04		0.8	mA
Mutual conductance	g _m	V _{DS} = 4.5V, V _{GS} = 0 R _S = 2.2kΩ ± 1%, f = 1kHz	300	500		μS
Noise figure	NV	V _{DS} = 4.5V, R _S = 2.2kΩ ± 1% C _G = 10pF, A-curve			4	μV
Voltage gain	G _{V1} *	V _{DS} = 4.5V, R _S = 2.2kΩ ± 1% C _G = 10pF, e _G = 100mV, f = 70Hz		-10		dB
	G _{V2} *	V _{DS} = 12V, R _S = 2.2kΩ ± 1% C _G = 10pF, e _G = 100mV, f = 70Hz		-9.5		dB
	G _{V3} *	V _{DS} = 1V, R _S = 2.2kΩ ± 1% C _G = 10pF, e _G = 100mV, f = 70Hz		-11		dB

* I_{DSS} rank classification and G_V value

Runk	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
Δ G _{V1} - G _{V2} (dB)	< 3	< 3

