

2SK0301 (2SK301)

Silicon N-Channel Junction FET

For low-frequency amplification

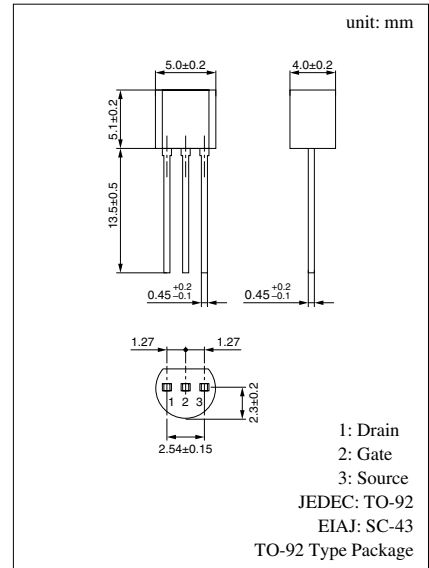
For switching

■ Features

- Low noises, high gain
- High gate to drain voltage V_{GDO}

■ Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Ratings	Unit
Drain to Source voltage	V_{DSX}	55	V
Gate to Drain voltage	V_{GDO}	-55	V
Gate to Source voltage	V_{GSO}	-55	V
Drain current	I_D	±30	mA
Gate current	I_G	10	mA
Allowable power dissipation	P_D	250	mW
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	-55 to +125	°C



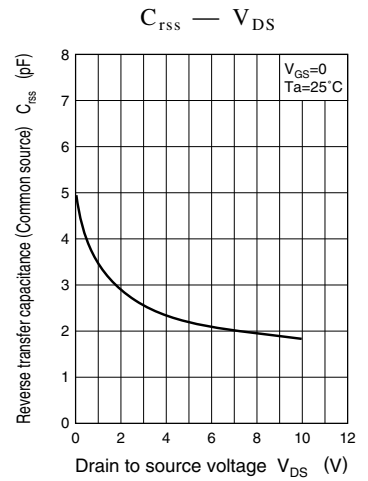
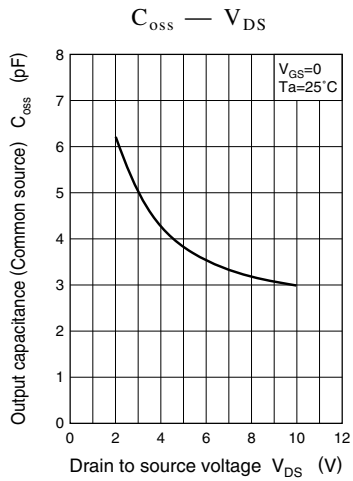
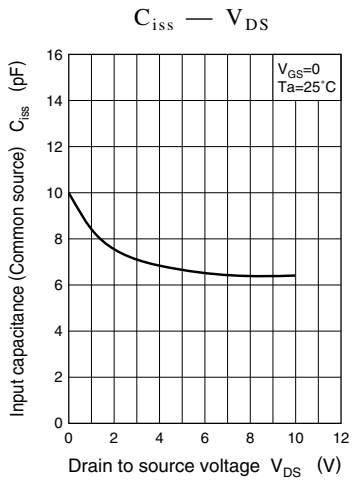
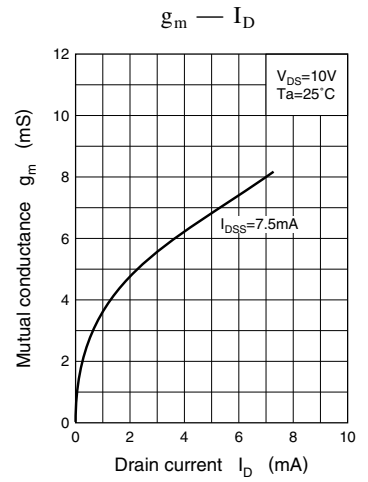
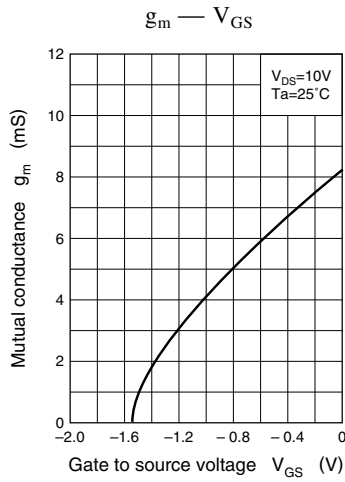
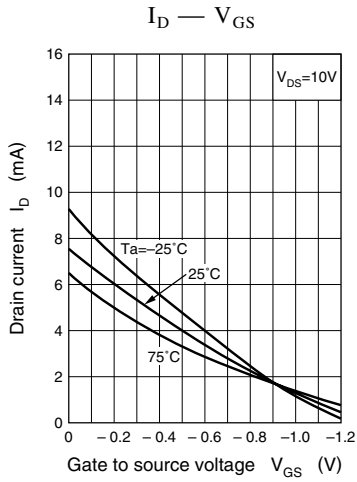
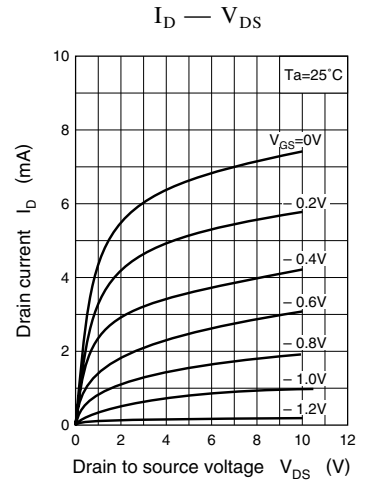
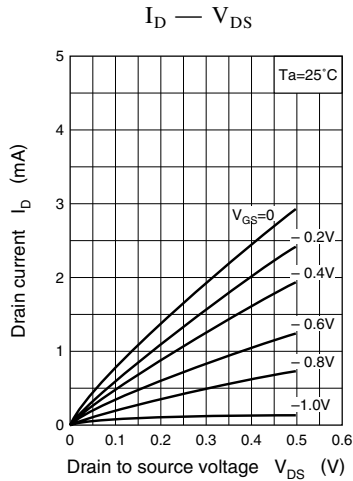
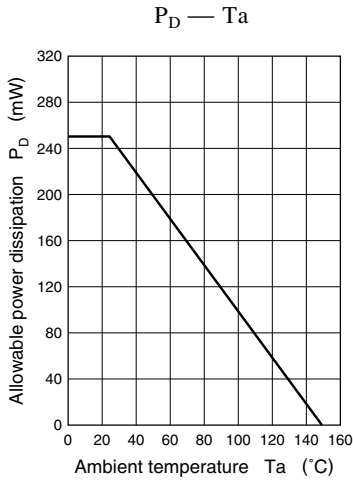
■ Electrical Characteristics (Ta = 25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Drain to Source cut-off current	I_{DSS}^*	$V_{DS} = 10V, V_{GS} = 0$	1		20	mA
Gate to Source leakage current	I_{GSS}	$V_{GS} = -30V, V_{DS} = 0$			-10	nA
Gate to Drain voltage	V_{GDC}	$I_G = -100\mu A, V_{DS} = 0$	-55	-80		V
Gate to Source cut-off voltage	V_{GSC}	$V_{DS} = 10V, I_D = 10\mu A$			-5	V
Mutual conductance	g_m	$V_{DS} = 10V, V_{GS} = 0, f = 1kHz$	2.5	7.5		mS
Input capacitance (Common Source)	C_{iss}	$V_{DS} = 10V, V_{GS} = 0, f = 1MHz$		6.5		pF
Reverse transfer capacitance (Common Source)	C_{rss}			1.9		pF
Noise figure	NF	$V_{DS} = 10V, V_{GS} = 0, R_g = 100k\Omega$ $f = 100Hz$		0.5		dB

* I_{DSS} rank classification

Rank	P	Q	R	S
I_{DSS} (mA)	1 to 3	2 to 6.5	5 to 12	10 to 20

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



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