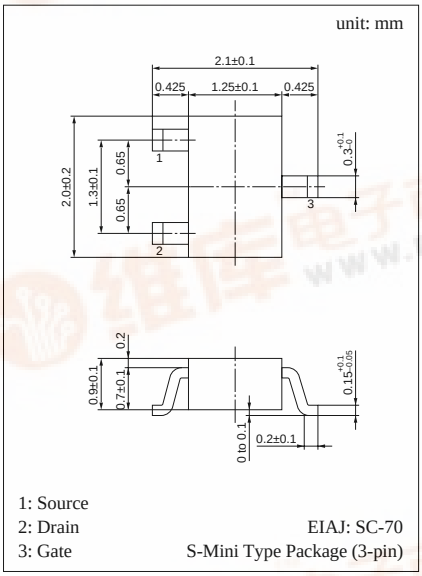
2SK663

Silicon N-Channel Junction FET

For low-frequency amplification
For switching



Marking Symbol (Example): 2B

■ Features

- Low noise-figure (NF)
- High gate to drain voltage V_{GDO}
- S-mini type package, allowing downsizing of the sets and automatic insertion through the tape/magazine packing.

■ 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	150	mW
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	−55 to +125	°C

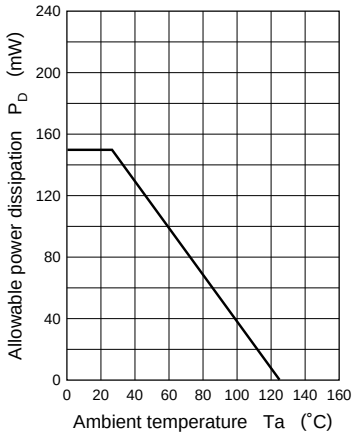
■ Electrical Characteristics (Ta = 25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Drain to Source cut-off current	I_{DSS}*	V_{DS} = 10V, V_{GS} = 0	1		12	mA
Gate to Source leakage current	I_{GSS}	V_{GS} = −30V, V_{DS} = 0			−10	nA
Gate to Drain voltage	V_{GDS}	I_G = 100μA, V_{DS} = 0	55	80		V
Gate to Source cut-off voltage	V_{GSC}	V_{DS} = 10V, I_D = 10μA			−5	V
Mutual conductance	g_m	V_{DS} = 10V, I_D = 5mA, 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 = 100kΩ f = 100Hz		2.5		dB

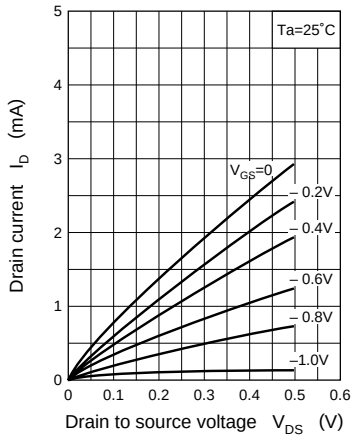
* I_{DSS} rank classification

Runk	P	Q	R
I_{DSS} (mA)	1 to 3	2 to 6.5	5 to 12
Marking Symbol	2BP	2BQ	2BR

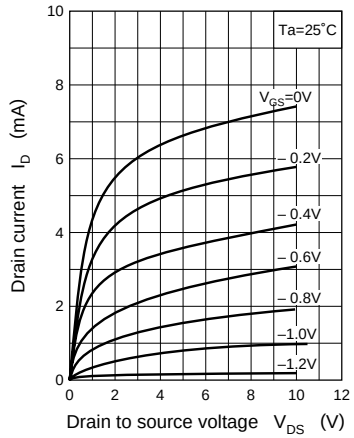
P_D — Ta



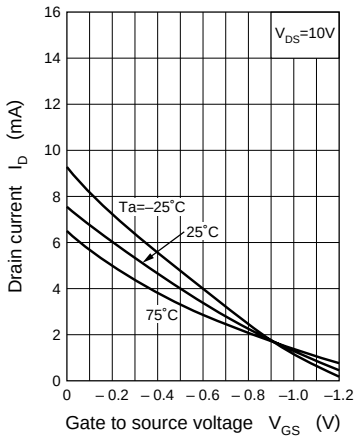
I_D — V_{DS}



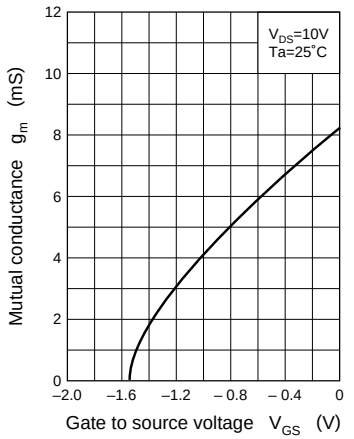
I_D — V_{DS}



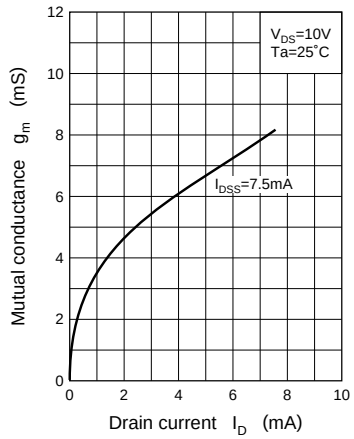
I_D — V_{GS}



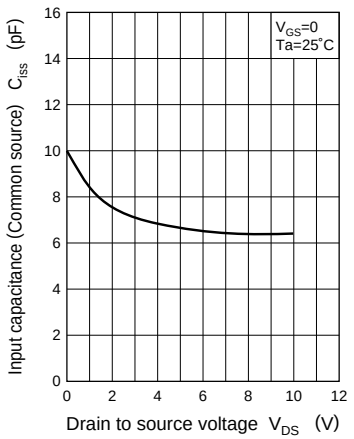
g_m — V_{GS}



g_m — I_D



C_{iss} — V_{DS}



C_{oss} — V_{DS}