

# 2SK1104

## Silicon N-Channel Junction FET

For switching

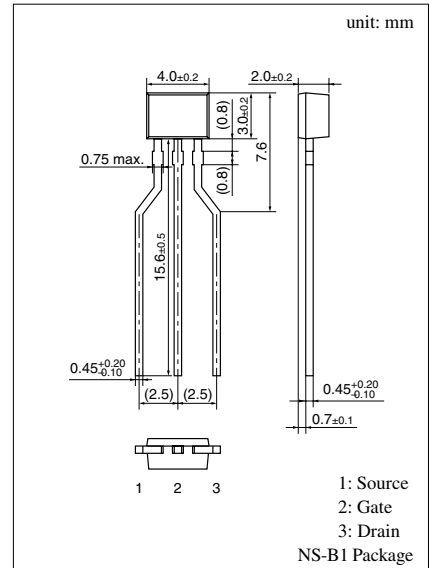
Complementary to 2SJ164

### ■ Features

- Low ON-resistance
- Low-noise characteristics

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

Parameter	Symbol	Rated	Unit
Gate to Drain voltage	$V_{GDS}$	-65	V
Drain current	$I_D$	20	mA
Gate current	$I_G$	10	mA
Allowable power dissipation	$P_D$	300	mW
Channel temperature	$T_{ch}$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C



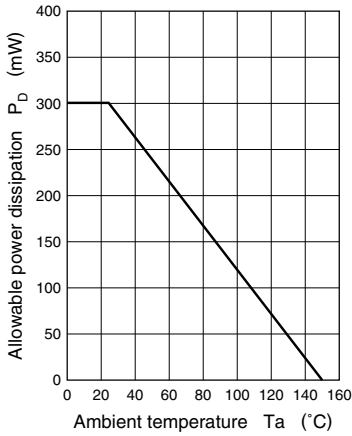
### ■ Electrical Characteristics (Ta = 25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Drain to Source cut-off current	$I_{DSS}^*$	$V_{DS} = 10V, V_{GS} = 0$	0.2		6	mA
Gate to Source leakage current	$I_{GSS}$	$V_{GS} = -30V, V_{DS} = 0$			-10	nA
Gate to Drain voltage	$V_{GDS}$	$I_G = -10\mu A, V_{DS} = 0$	-65			V
Gate to Source cut-off voltage	$V_{GSC}$	$V_{DS} = 10V, I_D = 10\mu A$		-1.5	-3.5	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 10V, I_D = 1mA, f = 1kHz$	1.8	2.5		mS
Drain to Source ON-resistance	$R_{DS(on)}$	$V_{DS} = 10mV, V_{GS} = 0$		250		$\Omega$
Input capacitance (Common Source)	$C_{iss}$	$V_{DS} = 10V, V_{GS} = 0, f = 1MHz$		7		pF
Output capacitance (Common Source)	$C_{oss}$			1.3		pF
Reverse transfer capacitance (Common Source)	$C_{rss}$			1.5		pF

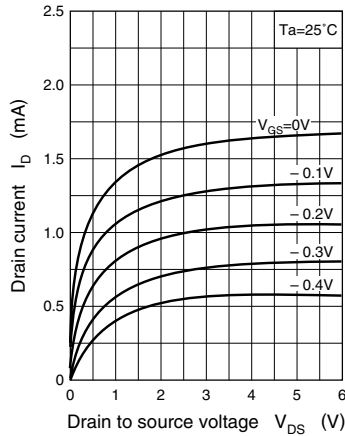
\*  $I_{DSS}$  rank classification

Rank	O	P	Q	R
$I_{DSS}$ (mA)	0.2 to 1	0.6 to 1.5	1 to 3	2.5 to 6

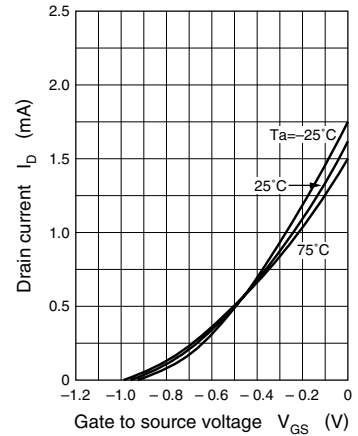
$P_D - T_a$



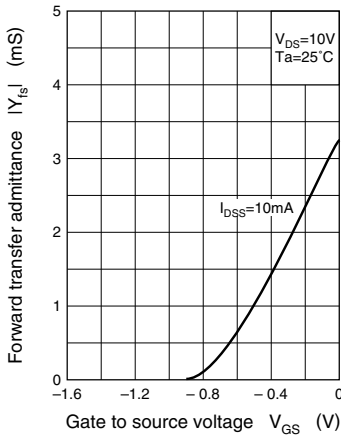
$I_D - V_{DS}$



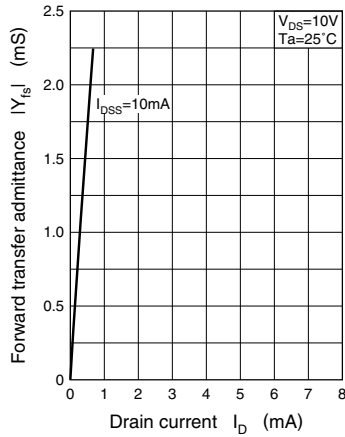
$I_D - V_{GS}$



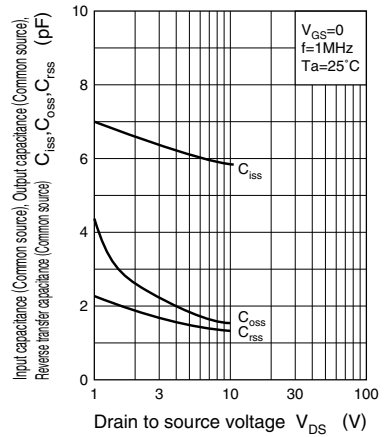
$|Y_{fs}| - V_{GS}$



$|Y_{fs}| - I_D$



$C_{iss}, C_{oss}, C_{rss} - V_{DS}$



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