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# 2SJ0164 (2SJ164)

## Silicon P-channel junction FET

For switching circuits

Complementary to 2SK1104

### ■ Features

- Low ON resistance
- Low-noise characteristics

### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Gate-drain surrender voltage	$V_{\text{GDS}}$	65	V
Drain current	$I_{\text{D}}$	-20	mA
Gate current	$I_{\text{G}}$	-10	mA
Power dissipation	$P_{\text{D}}$	300	mW
Channel temperature	$T_{\text{ch}}$	150	$^\circ\text{C}$
Storage temperature	$T_{\text{stg}}$	-55 to +150	$^\circ\text{C}$

### ■ Package

- Code  
NS-A1
- Pin Name  
1: Source  
2: Gate  
3: Drain

### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Gate-drain surrender voltage	$V_{\text{GDS}}$	$I_{\text{G}} = 10 \mu\text{A}$ , $V_{\text{DS}} = 0$	65			V
Drain-source current *	$I_{\text{DSS}}$	$V_{\text{DS}} = -10 \text{ V}$ , $V_{\text{GS}} = 0$	-0.6		-6.0	mA
Gate-source cutoff current	$I_{\text{GSS}}$	$V_{\text{GS}} = 30 \text{ V}$ , $V_{\text{DS}} = 0$			10	nA
Gate-source cutoff voltage	$V_{\text{GS(off)}}$	$V_{\text{DS}} = -10 \text{ V}$ , $I_{\text{D}} = -10 \mu\text{A}$		1.5	3.5	V
Mutual conductance	$g_{\text{m}}$	$V_{\text{DS}} = -10 \text{ V}$ , $I_{\text{D}} = -1 \text{ mA}$ , $f = 1 \text{ kHz}$	1.8	2.5		mS
Short-circuit forward transfer capacitance (Common source)	$C_{\text{iss}}$	$V_{\text{DS}} = -10 \text{ V}$ , $V_{\text{GS}} = 0$ , $f = 1 \text{ MHz}$		10		pF
Reverse transfer capacitance (Common source)	$C_{\text{rss}}$			3		pF
Drain-source ON resistance	$R_{\text{DS(on)}}$	$V_{\text{DS}} = -10 \text{ mV}$ , $V_{\text{GS}} = 0$		300		$\Omega$

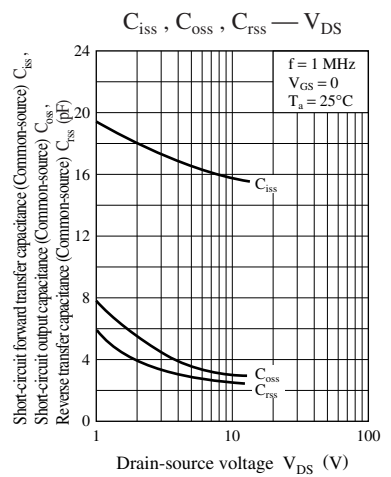
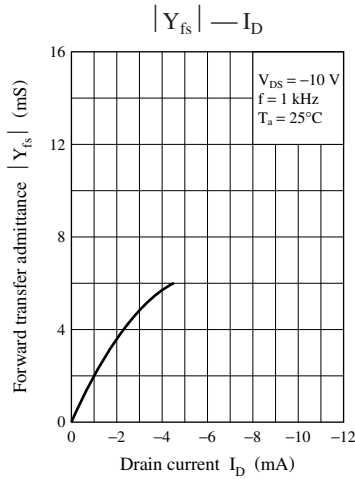
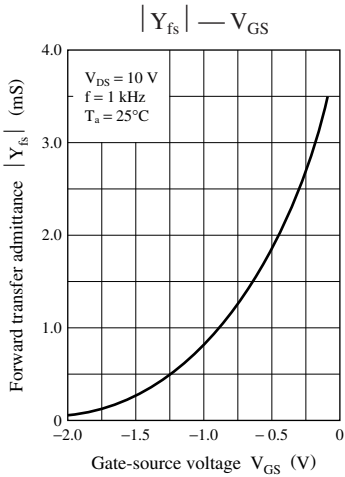
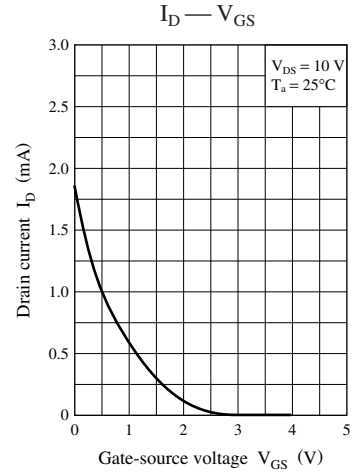
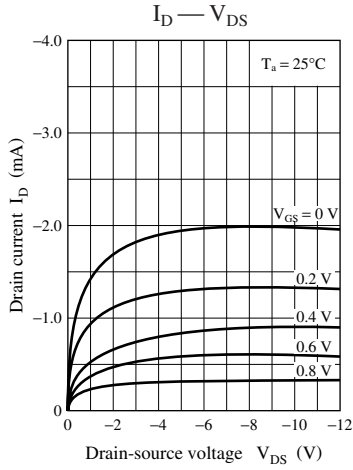
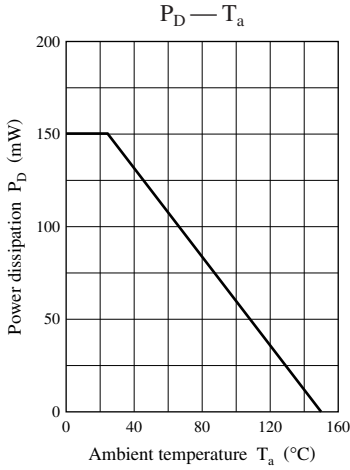
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. Observe precautions for handling. Electrostatic sensitive devices.

3. \*: Rank classification

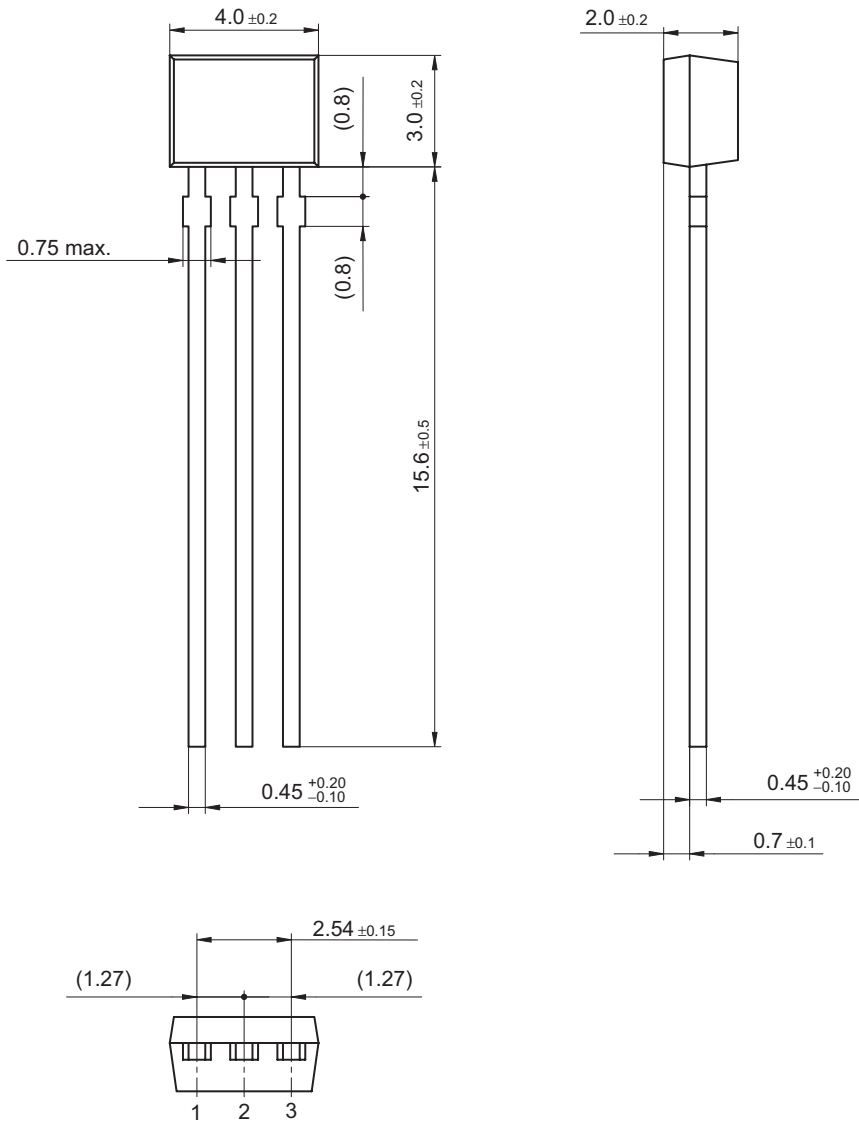
Rank	P	Q	R
$I_{\text{DSS}}$ (mA)	-0.6 to -1.5	-1.0 to -3.0	-2.5 to -6.0

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



NS-A1

Unit: mm



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