

# 2SK0663 (2SK663)

## Silicon N-channel junction FET

For low-frequency amplification

For switching circuits

### ■ Features

- Low noise figure NF
- High gate-drain voltage (source open)  $V_{GDO}$
- SMini type package, allowing downsizing of the sets and automatic insertion through the tape/magazine packing

### ■ Package

- Code  
SMini3-G1
- Pin Name  
1: Source  
2: Drain  
3: Gate

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

Parameter	Symbol	Rating	Unit
Drain-source voltage	$V_{DS}$	55	V
Gate-drain voltage (Source open)	$V_{GDO}$	-55	V
Gate-source voltage (Drain open)	$V_{GSO}$	-55	V
Drain current	$I_D$	30	mA
Gate current	$I_G$	10	mA
Power dissipation	$P_D$	150	mW
Channel temperature	$T_{ch}$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

### ■ Marking Symbol: 2B

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

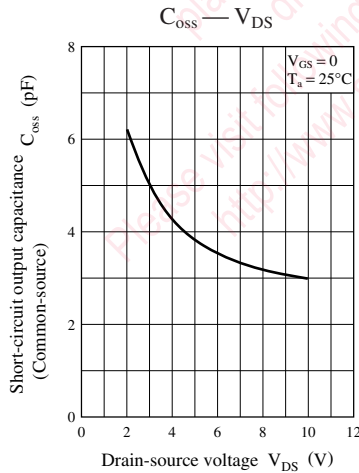
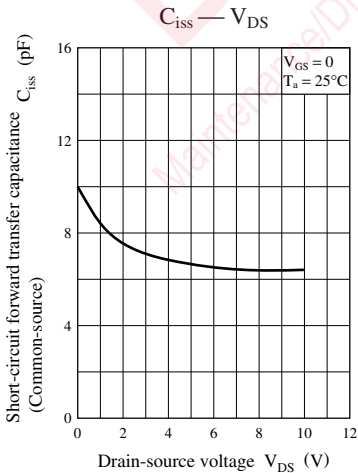
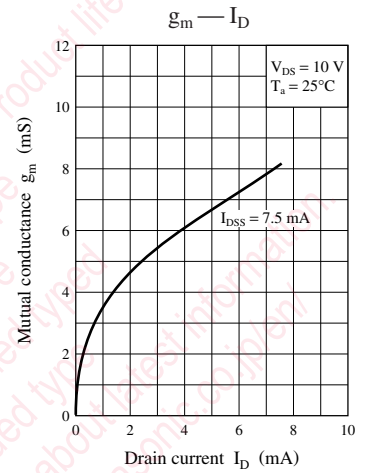
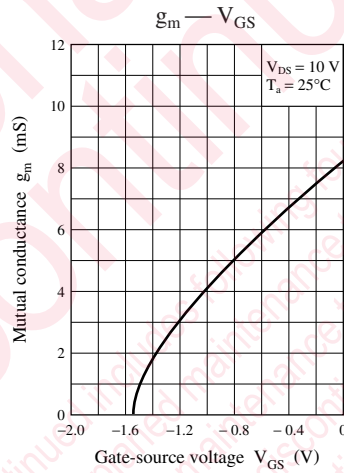
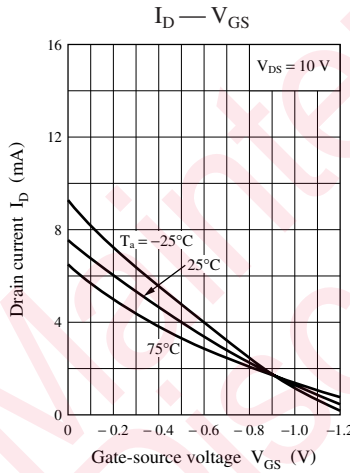
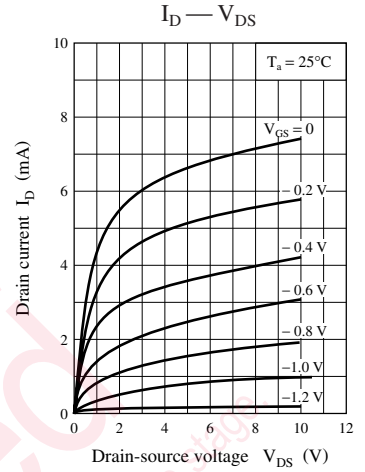
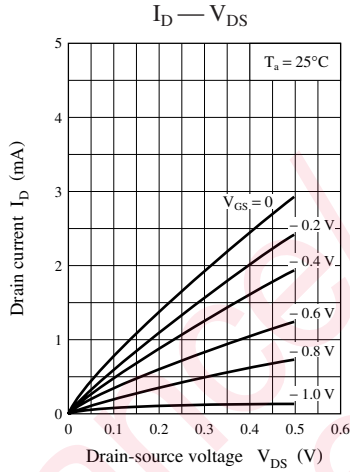
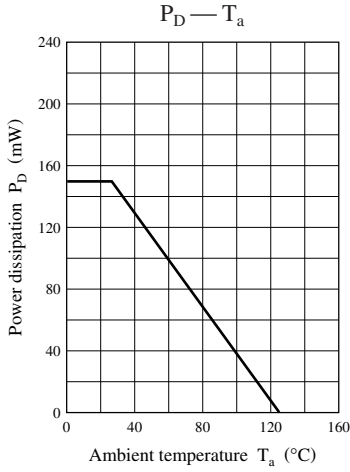
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Gate-drain surrender voltage	$V_{GDS}$	$I_G = -100 \mu\text{A}$ , $V_{DS} = 0$	55	80		V
Drain-source current *	$I_{DSS}$	$V_{DS} = 10 \text{ V}$ , $V_{GS} = 0$	1.0		12.0	mA
Gate-source cutoff current	$I_{GSS}$	$V_{GS} = -30 \text{ V}$ , $V_{DS} = 0$			-10	nA
Gate-source cutoff voltage	$V_{GSC}$	$V_{DS} = 10 \text{ V}$ , $I_D = 10 \mu\text{A}$			-5	V
Forward transfer admittance	$ Y_{fs} $	$V_{DS} = 10 \text{ V}$ , $I_D = 5 \text{ mA}$ , $f = 1 \text{ kHz}$	2.5	7.5		mS
Short-circuit forward transfer capacitance (Common source)	$C_{iss}$	$V_{DS} = 10 \text{ V}$ , $V_{GS} = 0$ , $f = 1 \text{ MHz}$		6.5		pF
Reverse transfer capacitance (Common source)	$C_{rss}$			1.9		pF
Noise figure	NF	$V_{DS} = 10 \text{ V}$ , $V_{GS} = 0$ , $f = 100 \text{ Hz}$ $R_g = 100 \text{ k}\Omega$		2.5		dB

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

2. \*: Rank classification

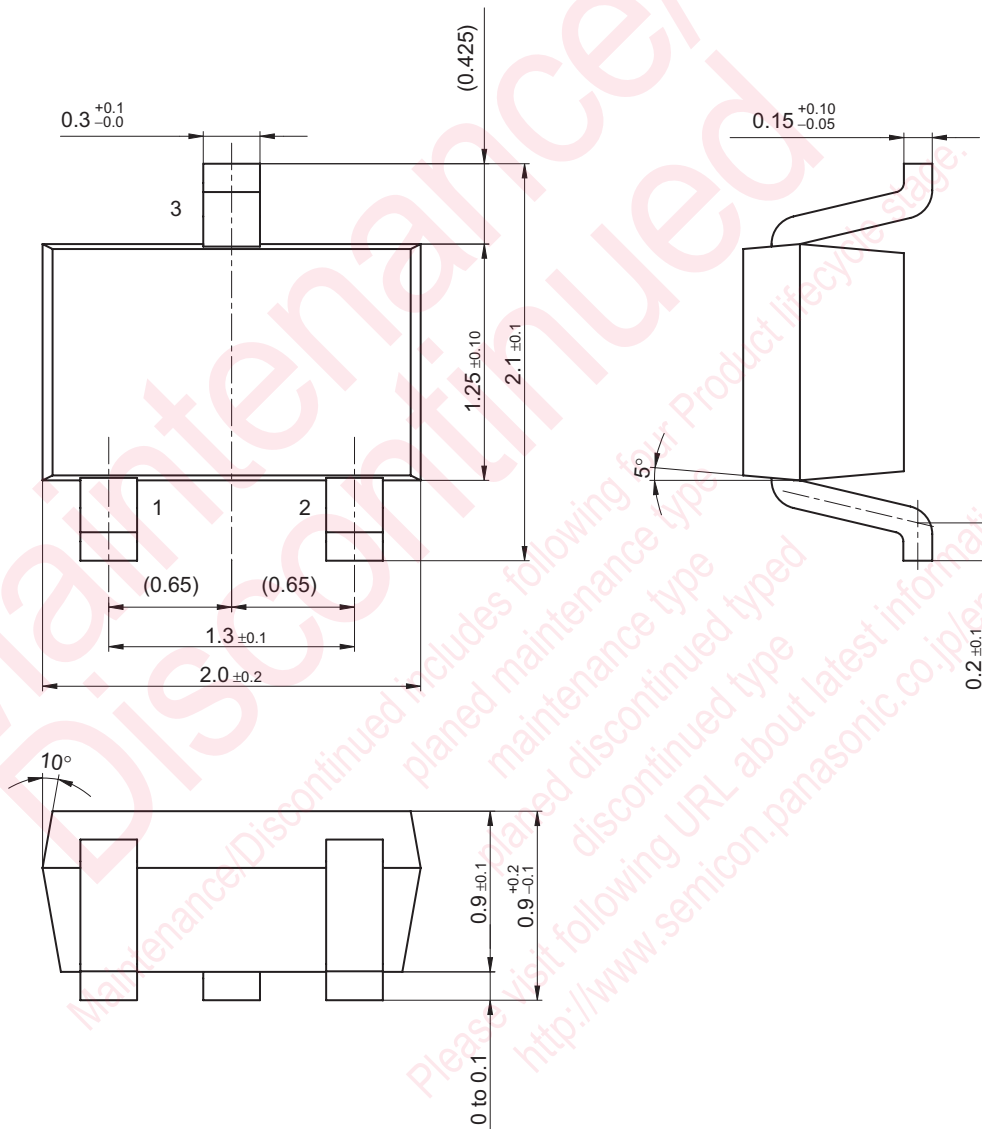
Rank	P	Q	R
$I_{DSS}$ (mA)	1.0 to 3.0	2.0 to 6.5	5.0 to 12.0

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



SMini3-G1

Unit: mm



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