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# 2SK0663G

### Silicon N-channel junction FET

For low-frequency amplification For switching circuits

#### ■ Features

- Low noise figure NF
- High gate-drain voltage (source open) V<sub>GDO</sub>
- SMini type package, allowing downsizing of the sets and automatic insertion through the tape/magazine packing

### ■ Absolute Maximum Ratings $T_a = 25$ °C

Parameter	Symbol	Rating	Unit	
Drain-sourse 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	$I_{\mathrm{D}}$	30	mA	
Gate current	$I_G$	10	mA	
Power dissipation	$P_{\mathrm{D}}$	150	mW	
Channel temperature	T <sub>ch</sub>	150	°C	
Storage temperature	$T_{stg}$	-55 to +150	°C	

### Package

- Code
- SMini3-F2
- Pin Name
  - 1: Source
  - 2: Drain
- 3: Gate
- Marking Symbol: 2B

## ■ Electrical Characteristics $T_a = 25$ °C ± 3°C

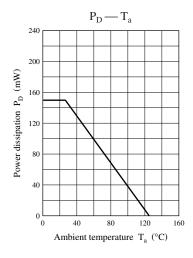
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Gate-drain surrender voltage	V <sub>GDS</sub>	$I_G = -100 \ \mu A, \ V_{DS} = 0$	55	80		V
Drain-source current *	$I_{ m DSS}$	$V_{DS} = 10 \text{ V}, V_{GS} = 0$	1.0	<i>)</i> -	12.0	mA
Gate-source cutoff current	$I_{GSS}$	$V_{GS} = -30 \text{ V}, V_{DS} = 0$	1.90		-10	nA
Gate-source cutoff voltage	$V_{GSC}$	$V_{DS} = 10 \text{ V}, I_D = 10 \mu A$			-5	V
Forward transfer admittance	Y <sub>fs</sub>	$V_{DS} = 10 \text{ V}, I_D = 5 \text{ mA}, f = 1 \text{ kHz}$	2.5	7.5		mS
Short-circuit forward transfer capacitance (Common source)	C <sub>iss</sub>	$V_{DS} = 10 \text{ V}, V_{GS} = 0, f = 1 \text{ MHz}$		6.5		pF
Reverse transfer capacitance (Common source)	C <sub>rss</sub>	26 110   HM		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

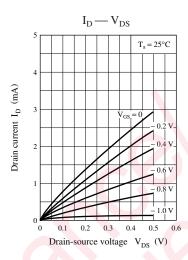
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

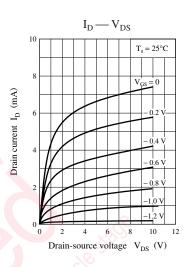
#### 2. \*: Rank classification

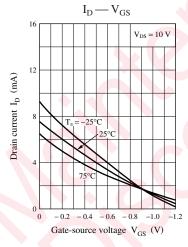
Rank	Р	Q	R
I <sub>DSS</sub> (mA)	1.0 to 3.0	2.0 to 6.5	5.0 to 12.0

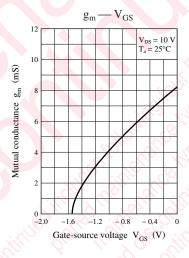
Note) The part number in the parenthesis shows conventional part number.

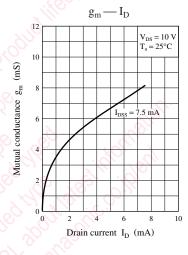


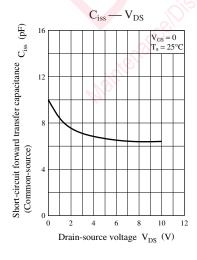


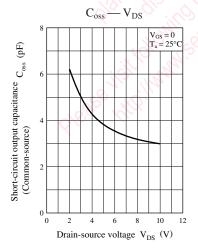




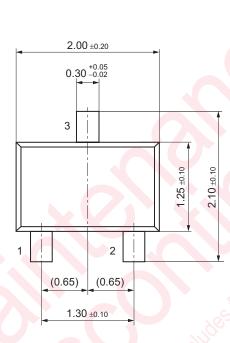


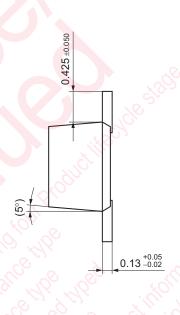


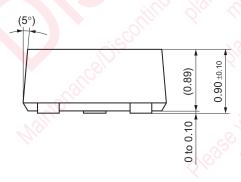


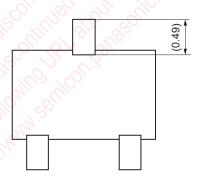


SMini3-F2 Unit: mm









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