

2SK0663 (2SK663)

Silicon N-Channel Junction FET

For low-frequency amplification

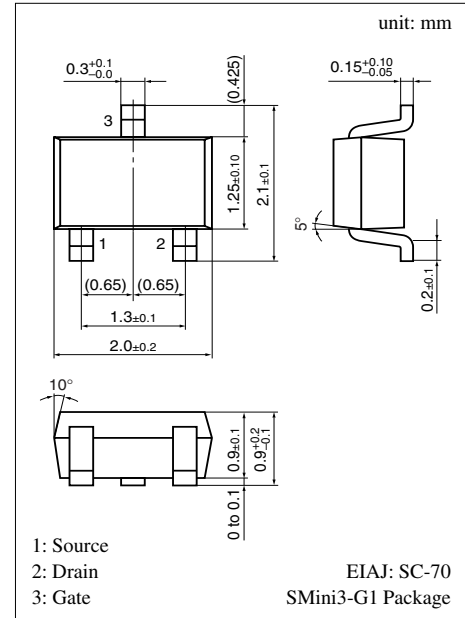
For switching

■ 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 ($T_a = 25^\circ\text{C}$)

| 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 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +125 | $^\circ\text{C}$ |



Marking Symbol (Example): 2B

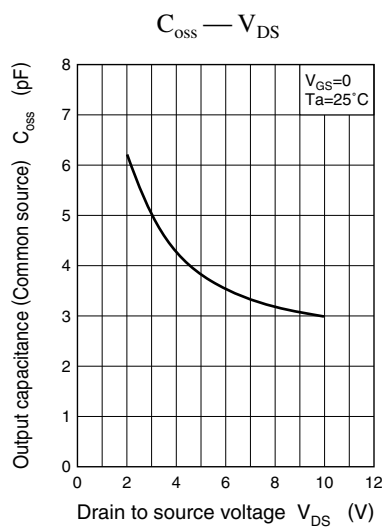
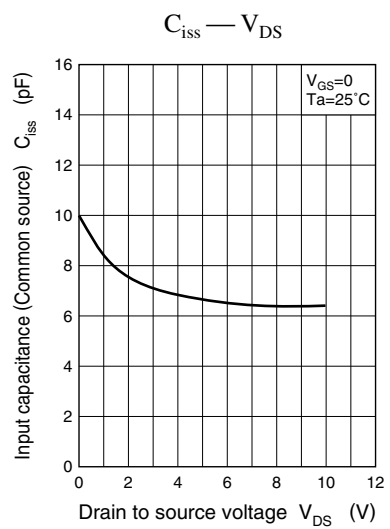
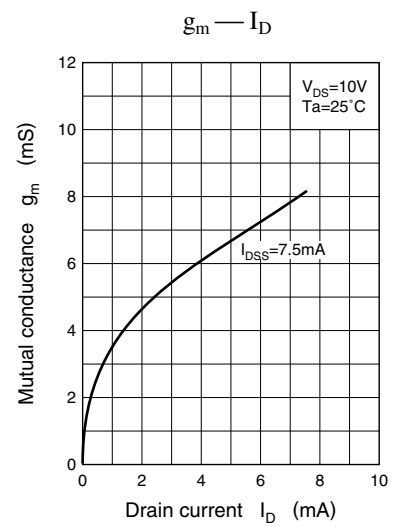
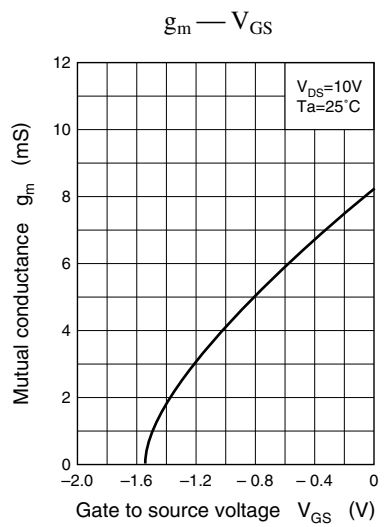
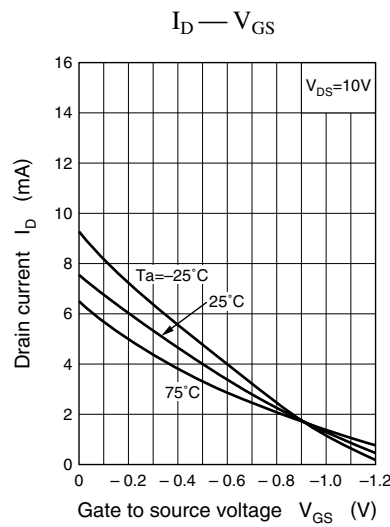
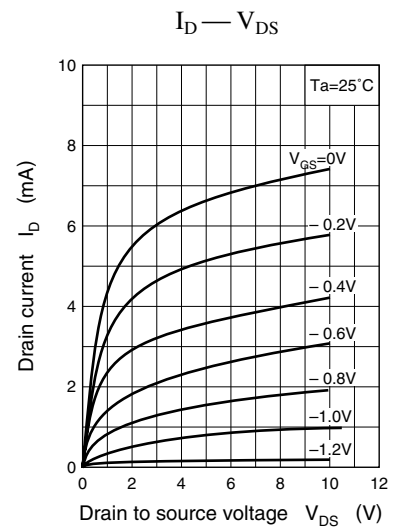
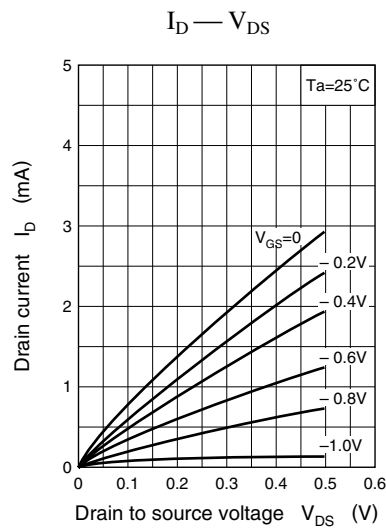
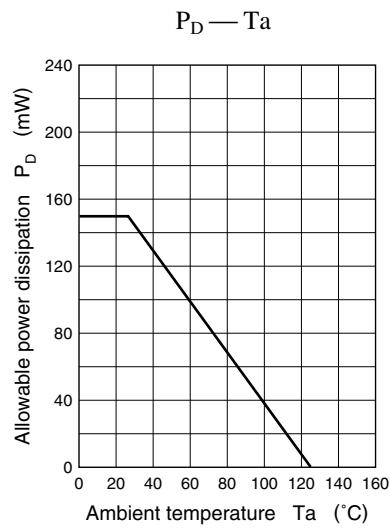
■ Electrical Characteristics ($T_a = 25^\circ\text{C}$)

| Parameter | Symbol | Conditions | min | typ | max | Unit |
|----------------------------------------------|-------------|----------------------------------------------------------------------------------|-----|-----|-----|------|
| Drain to Source cut-off current | I_{DSS}^* | $V_{DS} = 10\text{V}, V_{GS} = 0$ | 1 | | 12 | mA |
| Gate to Source leakage current | I_{GSS} | $V_{GS} = -30\text{V}, V_{DS} = 0$ | | | -10 | nA |
| Gate to Drain voltage | V_{GDS} | $I_G = 100\mu\text{A}, V_{DS} = 0$ | 55 | 80 | | V |
| Gate to Source cut-off voltage | V_{GSC} | $V_{DS} = 10\text{V}, I_D = 10\mu\text{A}$ | | | -5 | V |
| Mutual conductance | g_m | $V_{DS} = 10\text{V}, I_D = 5\text{mA}, f = 1\text{kHz}$ | 2.5 | 7.5 | | mS |
| Input 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 | $V_{DS} = 10\text{V}, V_{GS} = 0, R_g = 100\text{k}\Omega$ $f = 100\text{Hz}$ | | 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 |

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



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