N-Channel Silicon MOSFET (Dual Gate)

3SK263



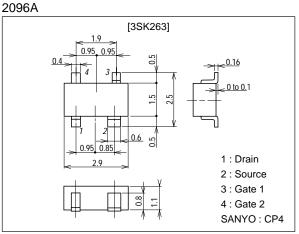
FM Tuner, VHF Tuner, High-Frequency Amplifier Applications

Features

- · Enhancement type.
- \cdot Small noise figure.
- · Small cross modulation.

Package Dimensions

unit:mm



Specifications

Absolute Maximum Ratings at Ta = 25°C

| Parameter | Symbol | Conditions | Ratings | Unit |
|-----------------------------|------------------|------------|-------------|------|
| Drain-to-Source Voltage | V _{DS} | | 15 | V |
| Gate1-to-Source Voltage | V _{G1S} | | ±8 | V |
| Gate2-to-Source Voltage | V _{G2S} | | ±8 | V |
| Drain Current | ۱ _D | | 30 | mA |
| Allowable Power Dissipation | PD | | 200 | mW |
| Channel Temperature | Tch | | 125 | °C |
| Storage Temperature | Tstg | | -55 to +125 | °C |

Electrical Characteristics at Ta = 25°C

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---|-----------------|---|---------------------|-----|-----|-----------|
| | | | min | typ | max | Unit |
| Drain-to-Source Voltage | V _{DS} | V _{G1S} =0V, V _{G2S} =0V, I _D =100µA | 15 | | | V |
| Gate1-to-Source Cutoff Voltage | VG1S(off) | V _{DS} =6V, V _{G2S} =4V, I _D =100µA | 0 | 0.7 | 1.3 | V |
| Gate2-to-Source Cutoff Voltage | VG2S(off) | V _{DS} =6V, V _{G1S} =3V, I _D =100µA | 0.1 | 0.9 | 1.6 | V |
| Gate1-to-Source Leakage Current | IG1SS | V _{G1S} =±6V, V _{G2S} =V _{DS} =0V | | | ±50 | nA |
| Gate2-to-Source Leakage Current | IG2SS | V _{G2S} =±6V, V _{G1S} =V _{DS} =0V | | | ±50 | nA |
| Zero-Gate Voltage Drain Current | IDSX | V _{DS} =6V, V _{G1S} =1.5V, V _{G2S} =4V | 2.5* | | 24* | mA |
| Forward Transfer Admittance | yfs | V _{DS} =6V, I _D =10mA, V _{G2S} =4V, f=1kHz | | 14 | | mS |
| * : The 3SK263 is classified by IDSX as follows : (unit : mA) | | 25 4 60 50 5 120 100 6 240 | Continued on next p | | | ext page. |

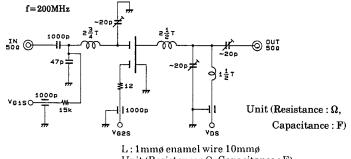
* : The 3SK263 is classified by I_{DSX} as follows : (unit : mA) 2.5 4 6.0 5.0 5 12.0 10.0 6 24.0 Continued on next page I_{DSX} rank : 4, 5, 6

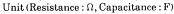
- I_{DSX} rank : 4, 5, 6
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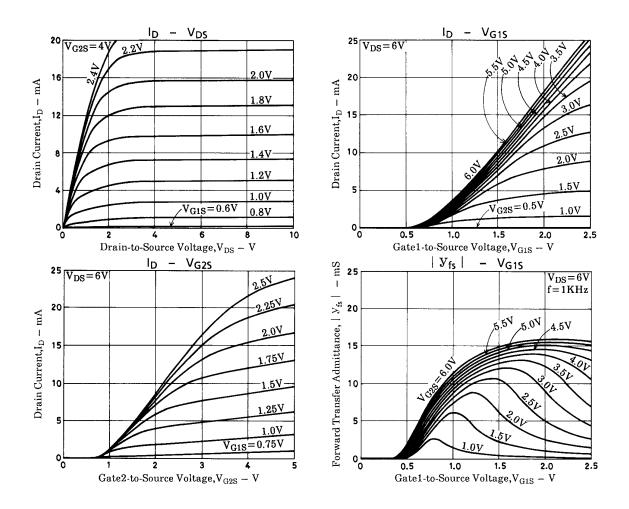
SANYO Electric Co., Ltd. Semiconductor Company TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN Continued from preceding page.

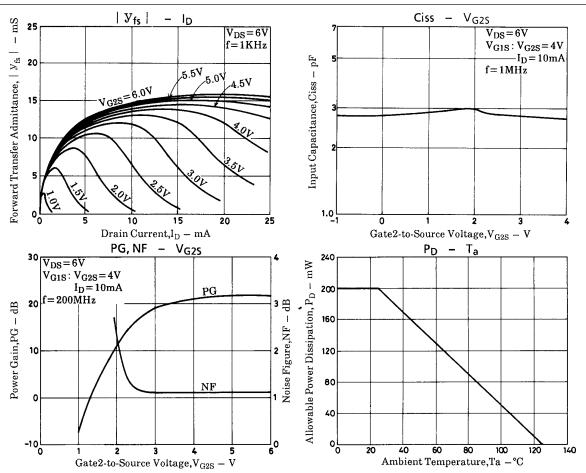
| Parameter | Symbol | Conditions | Ratings | | | Unit |
|------------------------------|--------|---|---------|-------|------|------|
| | | | min | typ | max | Unit |
| Input Capacitance | Ciss | V _{DS} =6V, f=1MHz, V _{G1S} =0V, V _{G2S} =4V | | 2.7 | | pF |
| Reverse Transfer Capacitance | Crss | V _{DS} =6V, f=1MHz, V _{G1S} =0V, V _{G2S} =4V | | 0.015 | 0.03 | pF |
| Power Gain | PG | V _{DS} =6V, I _D =10mA, V _{G2S} =4V, f=200MHz | 18 | 21 | | dB |
| Noise Figure | NF | V _{DS} =6V, I _D =10mA, V _{G2S} =4V, f=200MHz | | 1.1 | 2.2 | dB |

PG, NF Specified Test Circuit









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