



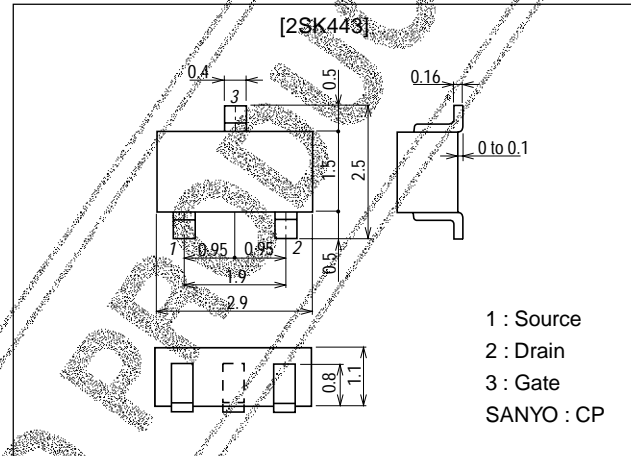
Video Camera First-Stage Applications

Features

- Large $|y_{fs}|$.
- Small Crss.
- Ultralow noise figure.
- Ultrasmall-sized package permitting 2SK443-applied sets to be small-sized.

Package Dimensions

unit:mm
2050A



Specifications

Absolute Maximum Ratings at Ta = 25°C

| Parameter | Symbol | Conditions | Ratings | Unit |
|-----------------------------|-----------|------------|-------------|------|
| Drain-to-Source Voltage | V_{DSS} | | 15 | V |
| Gate-to-Drain Voltage | V_{GDS} | | -15 | V |
| Gate Current | I_G | | 10 | mA |
| Drain Current | I_D | | 50 | mA |
| Allowable Power Dissipation | P_D | | 200 | mW |
| Junction Temperature | T_j | | 125 | °C |
| Storage Temperature | T_{stg} | | -55 to +125 | °C |

Electrical Characteristics at Ta = 25°C

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---------------------------------|---------------|--|---------|------|-------|------|
| | | | min | typ | max | |
| Gate-to-Drain Breakdown Voltage | $V_{(BR)GDS}$ | $I_D=10\mu A, V_{DS}=0$ | -15 | | | V |
| Gate-to-Source Leakage Current | I_{GSS} | $V_{GS}=-10V, V_{DS}=0$ | | | -1.0 | nA |
| Zero-Gate Voltage Drain Current | I_{DSS}^* | $V_{DS}=5V, V_{GS}=0$ | 5.0* | | 38.0* | mA |
| Cutoff Voltage | $V_{GS(off)}$ | $V_{DS}=5V, I_D=100\mu A$ | | -0.9 | -2.0 | V |
| Forward Transfer Admittance | $ y_{fs} $ | $V_{DS}=5V, V_{GS}=0, f=1kHz$ | 20 | 30 | | mS |
| Input Capacitance | C_{iss} | $V_{DS}=5V, V_{GS}=0, f=1MHz$ | | 9.0 | | pF |
| Reverse Transfer Capacitance | C_{rss} | $V_{DS}=5V, V_{GS}=0, f=1MHz$ | | 2.8 | | pF |
| Noise Figure | NF | $V_{DS}=5V, R_g=1k\Omega, I_D=1mA, f=1kHz$ | | 1.5 | | dB |

* : The 2SK443 is classified by I_{DSS} as follows (unit : mA) :

(Note) Marking : AJ

I_{DSS} rank : 5, 6, 7

| | | | | | | | | |
|-----|---|------|------|---|------|------|---|------|
| 5.0 | 5 | 12.0 | 10.0 | 6 | 24.0 | 16.0 | 7 | 38.0 |
|-----|---|------|------|---|------|------|---|------|

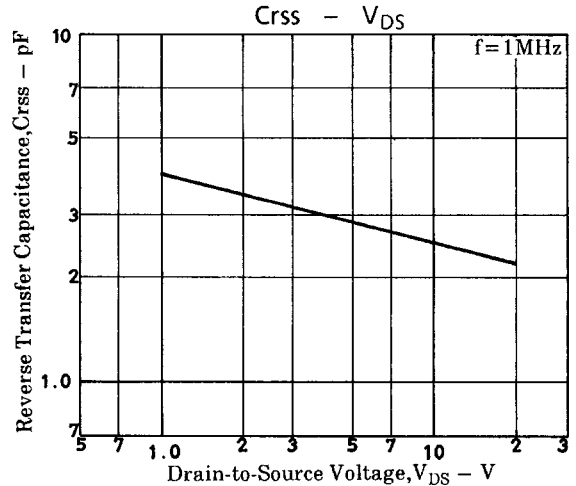
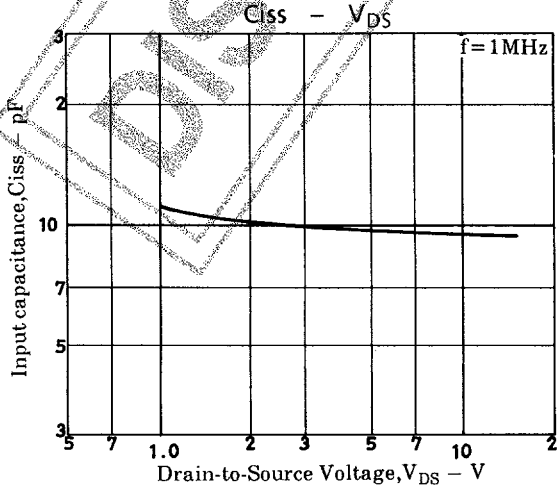
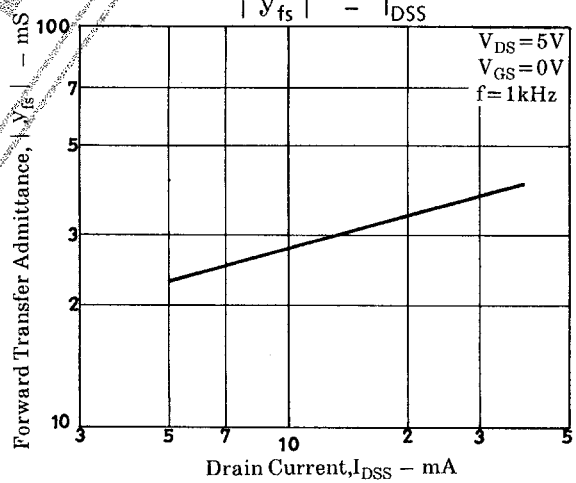
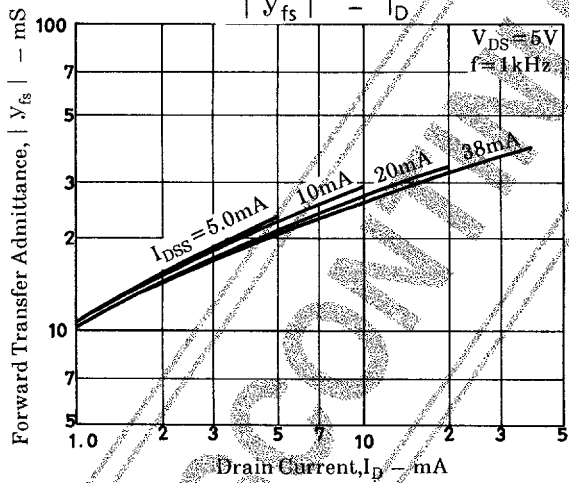
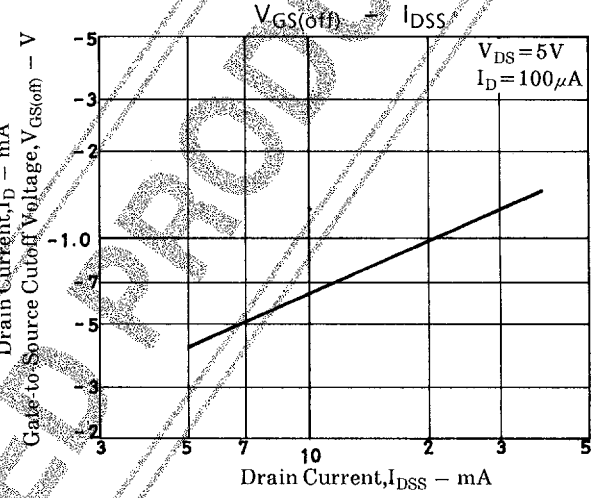
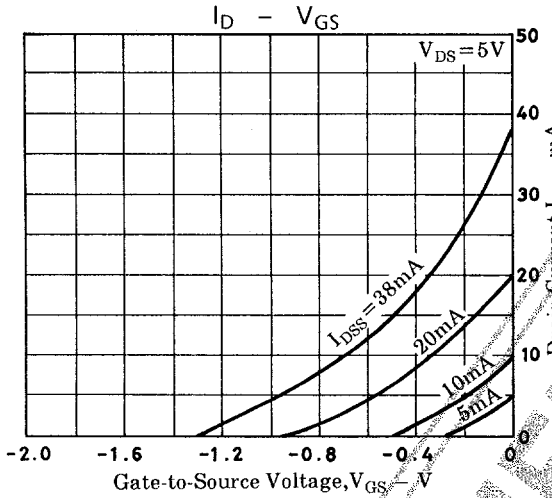
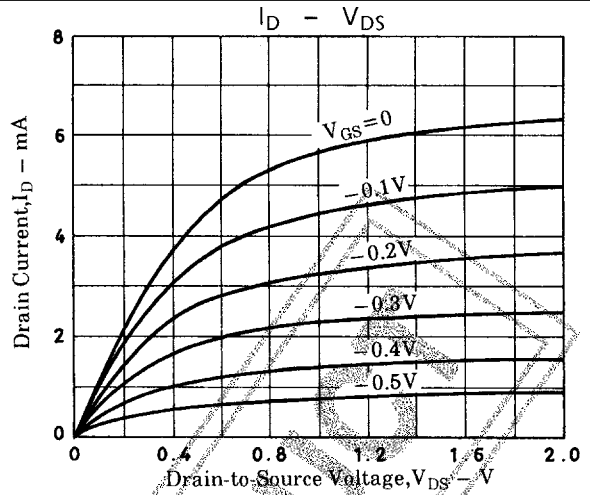
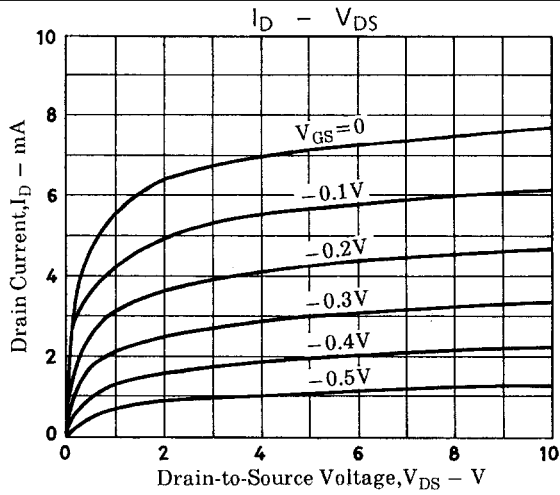
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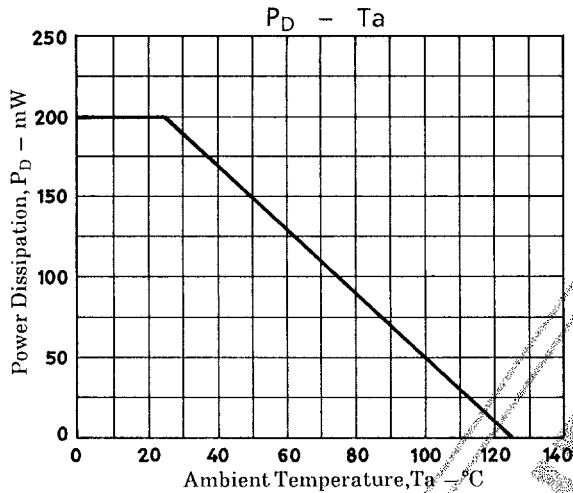
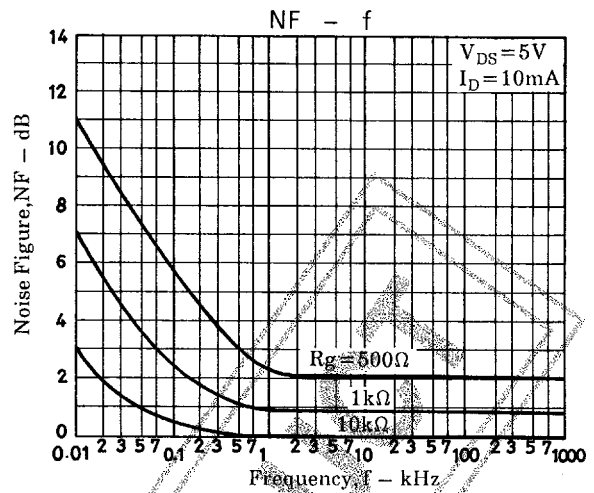
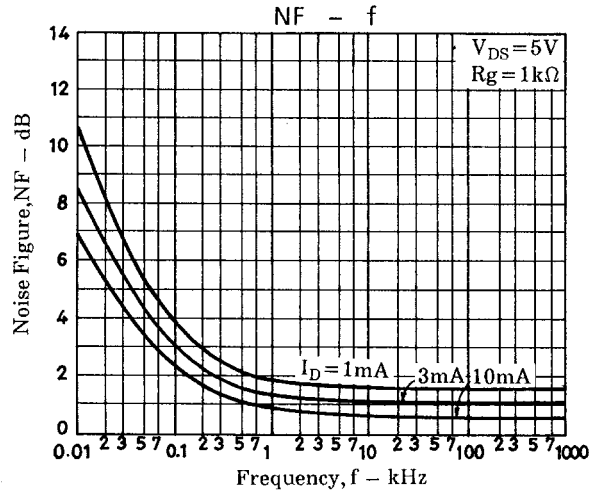
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2SK443



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