

|  |  |        |
|--|--|--------|
| <b>SANYO</b>                                 | No.1419B   | 2SK443 |
|  | N-Channel Junction Silicon Field-Effect Transistor |        |
| <b>Video Camera First-Stage Applications</b> |  |        |

**Features**

- Large  $|Y_{fs}|$ .
- Small Ciss.
- Very low noise figure.
- Very small-sized package permitting 2SK443-applied sets to be small-sized.

**Absolute Maximum Ratings at Ta = 25°C**

|                         |           |             | unit |
|-------------------------|-----------|-------------|------|
| Drain-to-Source Voltage | $V_{DS}$  | 15          | V    |
| Gate-to-Drain Voltage   | $V_{GDS}$ | -15         | V    |
| Gate Current            | $I_G$     | 10          | mA   |
| Drain Current           | $I_D$     | 50          | mA   |
| 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**

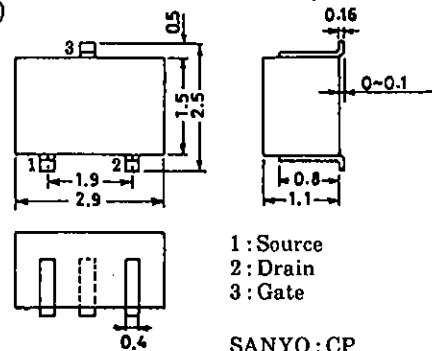
|                                 |               |  | min  | typ  | max   | unit |
|---------------------------------|---------------|--|------|------|-------|------|
| Gate-to-Drain Breakdown Voltage | $V_{(BR)GDS}$ | $I_D = 10\mu A, V_{DS} = 0$                        | -15  |      |       | V    |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

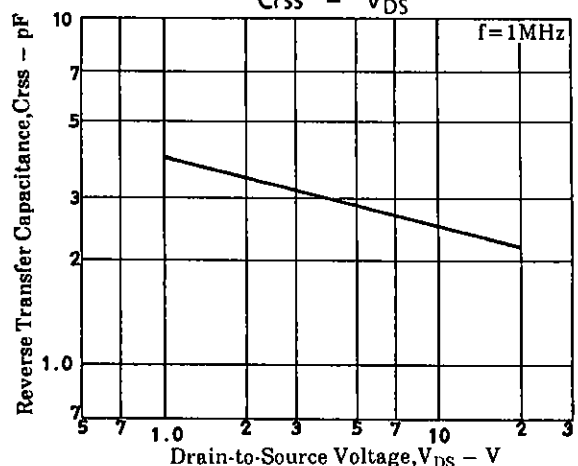
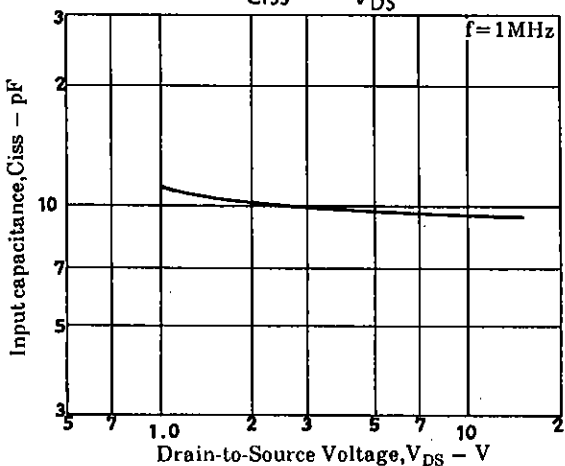
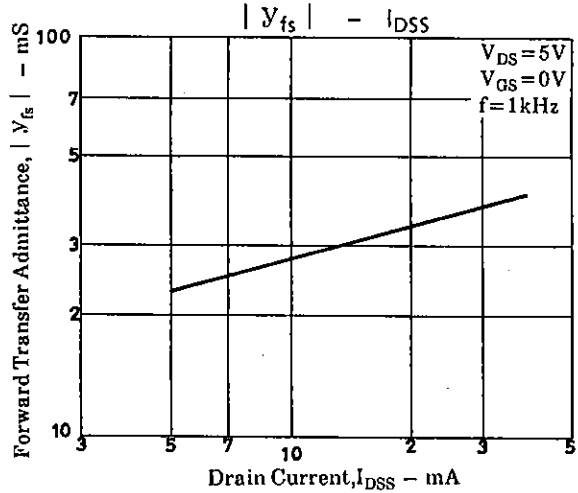
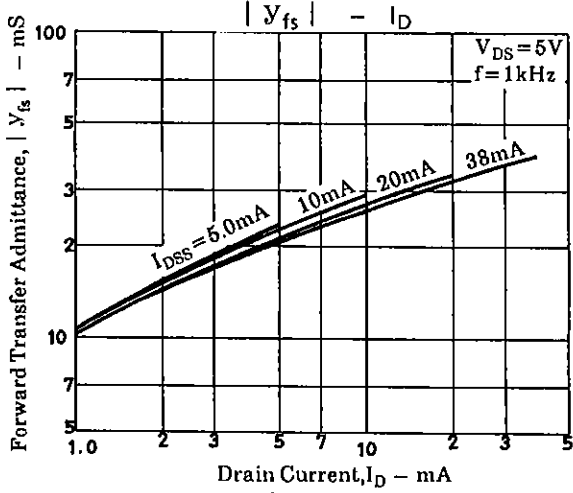
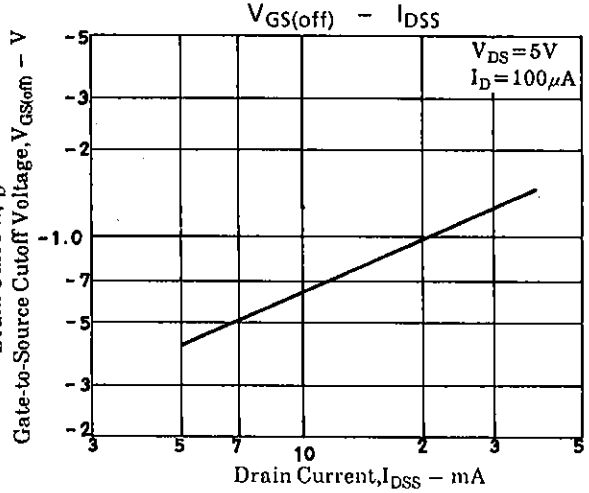
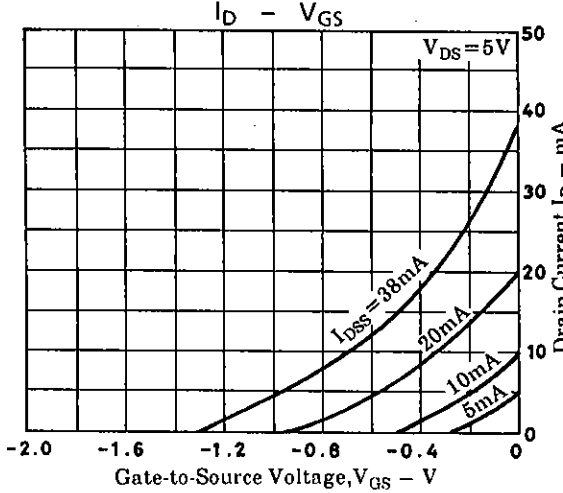
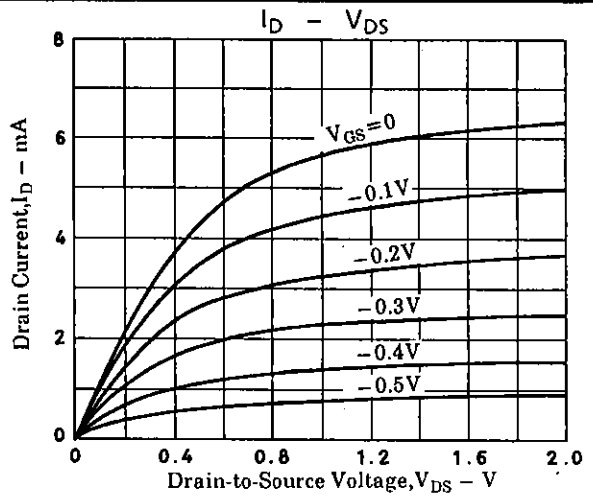
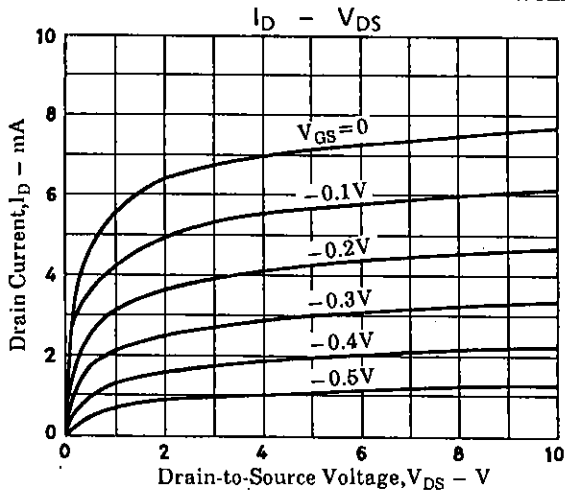
\* The 2SK443 is classified by  $I_{DSS}$  as follows (unit : mA) :

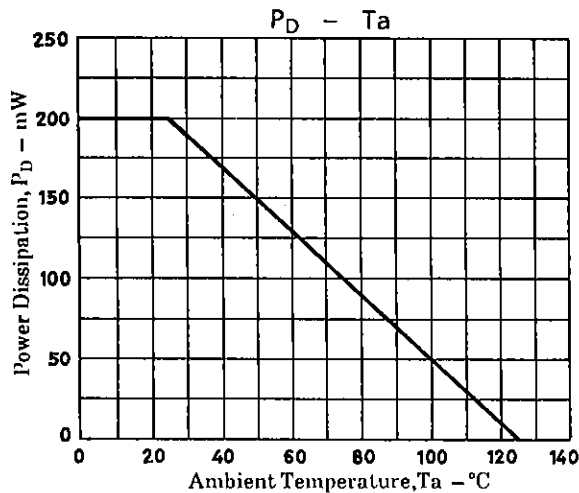
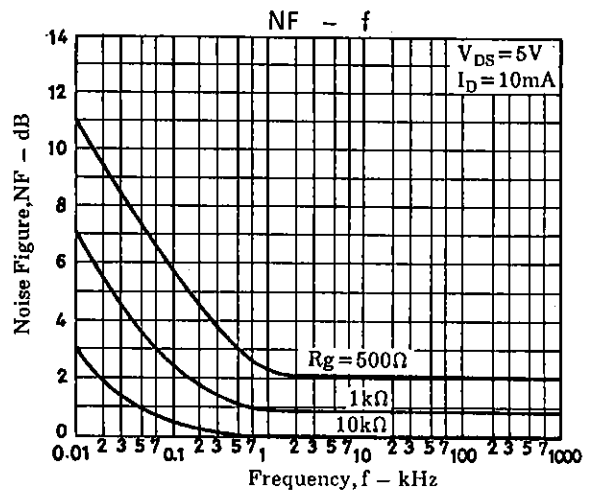
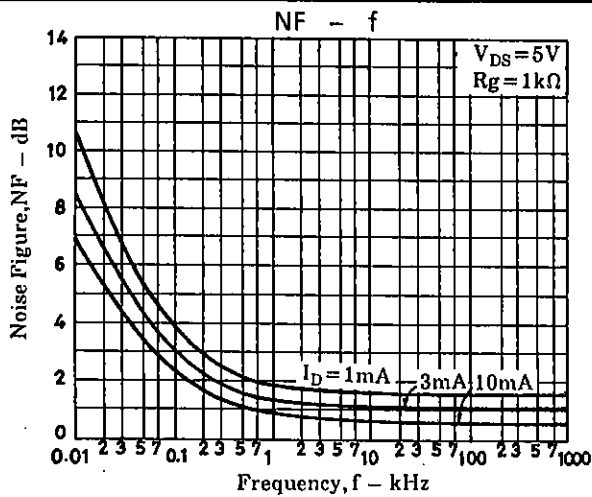
|     |   |      |      |   |      |      |   |      |
|-----|---|------|------|---|------|------|---|------|
| 5.0 | 5 | 12.0 | 10.0 | 6 | 24.0 | 16.0 | 7 | 38.0 |
|-----|---|------|------|---|------|------|---|------|

(Note) Marking : AJ  
 $I_{DSS}$  rank : 5, 6, 7

**Package Dimensions 2050A**  
(unit : mm)







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