

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

**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  $T_a = 25^\circ\text{C}$** 

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

**Electrical Characteristics at  $T_a = 25^\circ\text{C}$** 

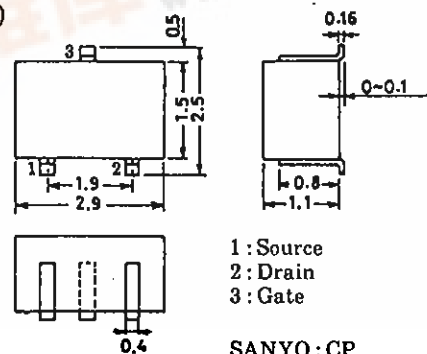
|                                   |               |  | min  | typ  | max   | unit |
|-----------------------------------|---------------|--|------|------|-------|------|
| Gate-to-Drain Breakdown Voltage   | $V_{(BR)GDS}$ | $I_D = 10\mu\text{A}, V_{DS} = 0$  | -15  |      |       | V    |
| Common-Source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

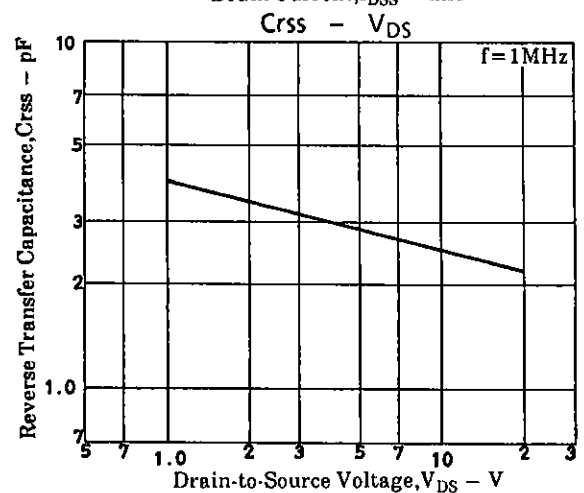
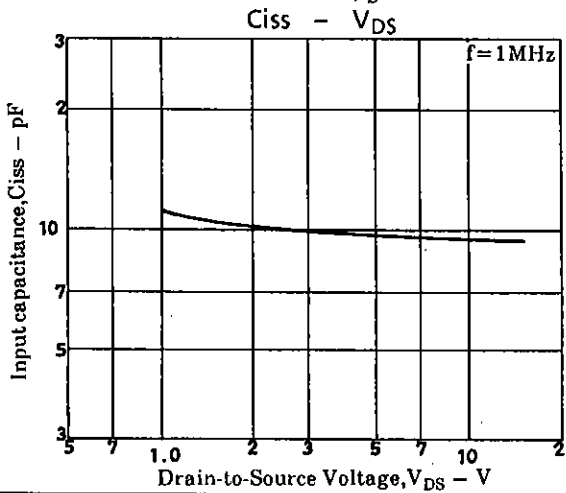
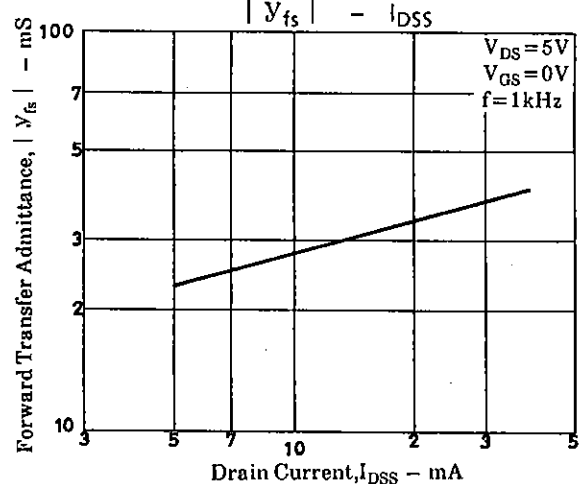
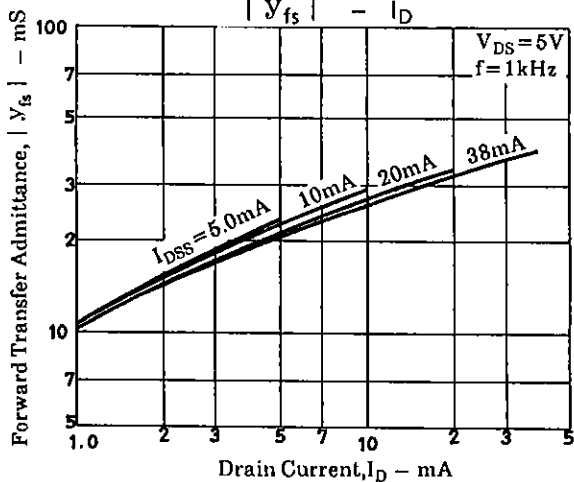
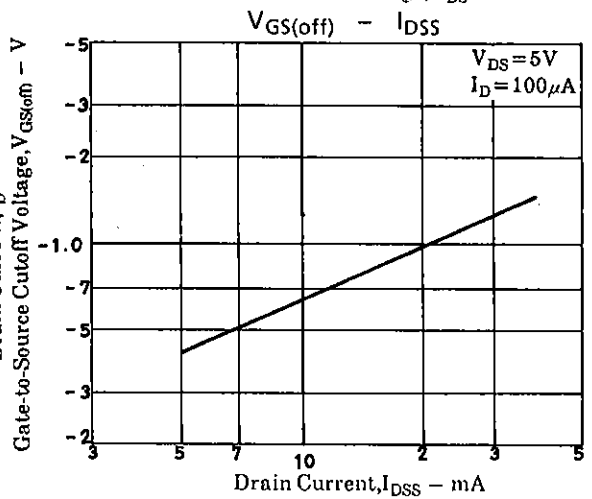
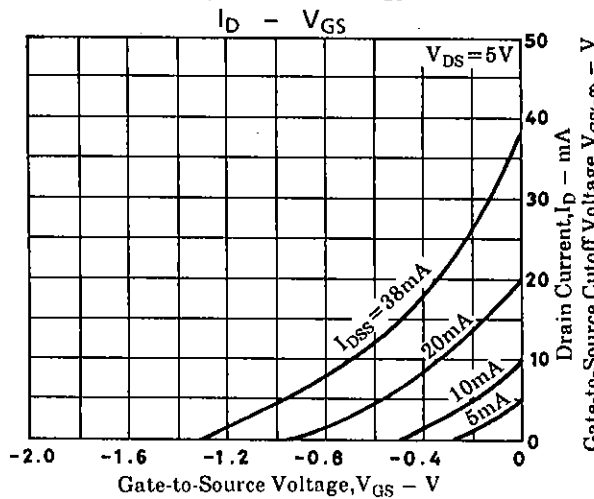
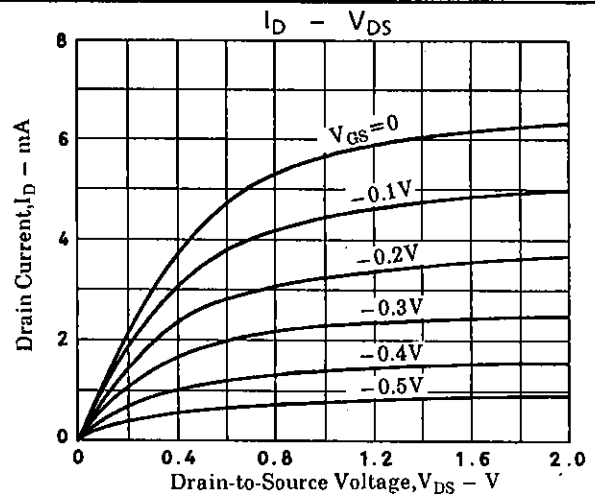
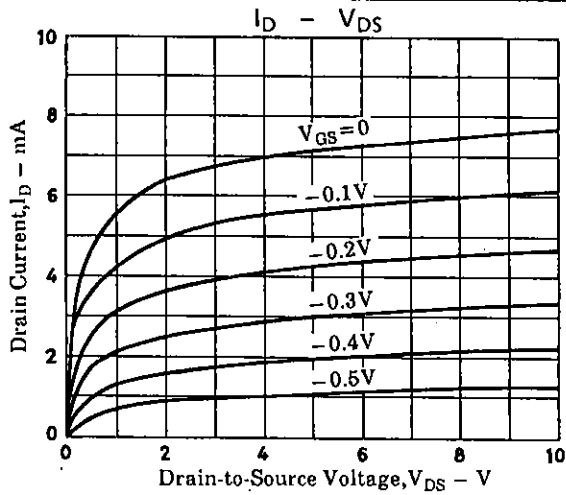
※ The 2SK443 is classified by  $I_{DSS}$  as follows (unit: mA):

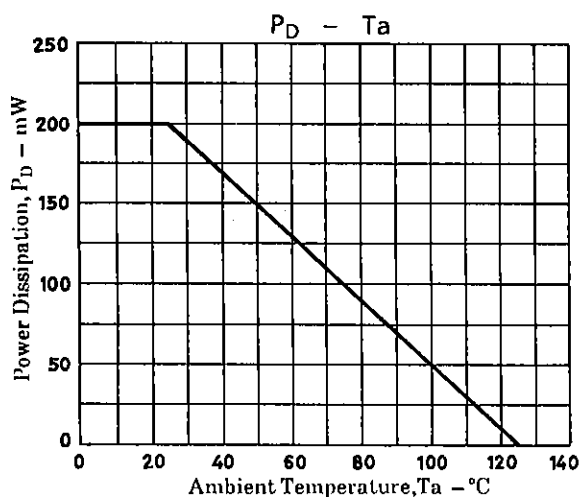
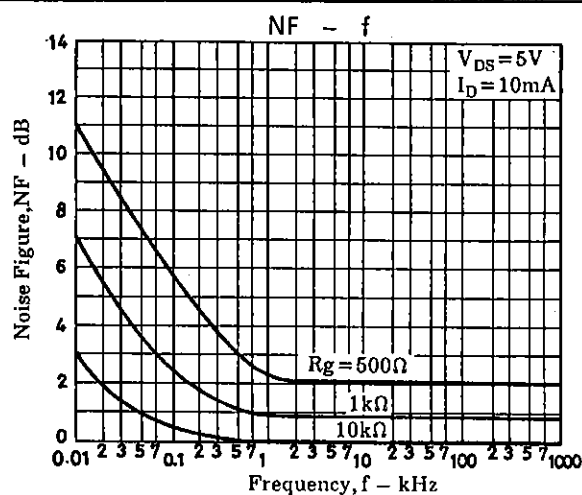
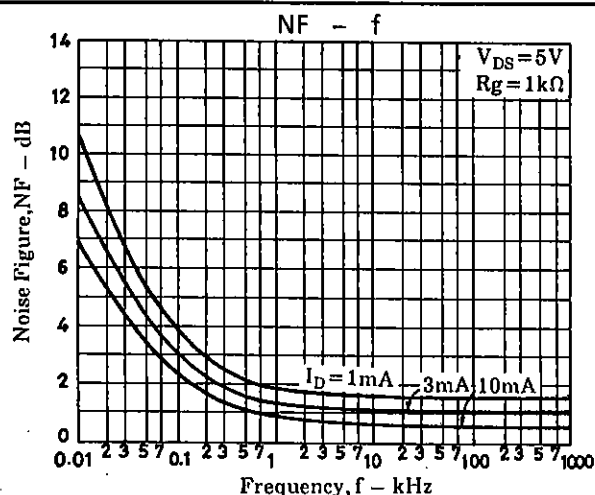
|     |   |      |      |   |      |      |   |      |
|-----|---|------|------|---|------|------|---|------|
| 5.0 | 5 | 12.0 | 10.0 | 6 | 24.0 | 16.0 | 7 | 38.0 |
|-----|---|------|------|---|------|------|---|------|

(Note) Marking : AJ

$I_{DSS}$  rank : 5, 6, 7

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





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