2SK443



# **Video Camera First-Stage Applications**

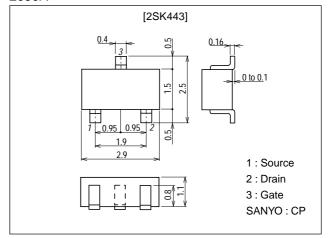
### **Features**

- · 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 <sub>DSS</sub>		15	V
Gate-to-Drain Voltage	V <sub>GDS</sub>		-15	V
Gate Current	IG		10	mA
Drain Current	ID		50	mA
Allowable Power Dissipation	PD		200	mW
Junction Temperature	Tj		125	°C
Storage Temperature	Tstg		-55 to +125	°C

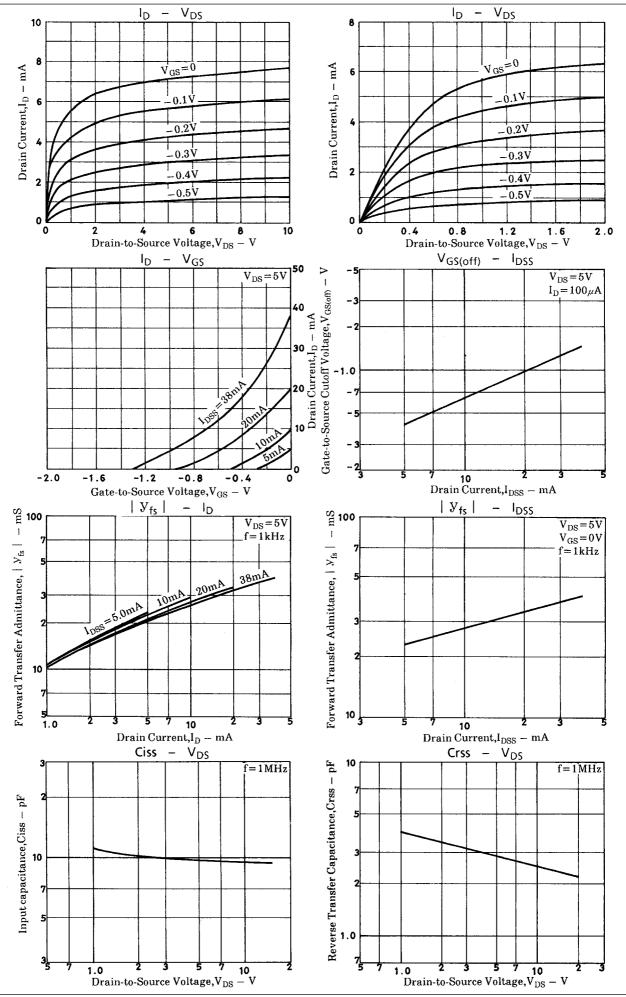
### Electrical Characteristics at Ta = 25°C

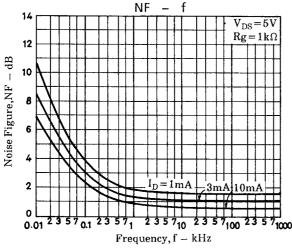
Parameter	Symbol	Conditions	Ratings			Unit
Falametei			min	typ	max	Offic
Gate-to-Drain Breakdown Voltage	V(BR)GDS	I <sub>D</sub> =10μA, V <sub>DS</sub> =0	-15			V
Gate-to-Source Leakage Current	IGSS	V <sub>GS</sub> =-10V, V <sub>DS</sub> =0			-1.0	nA
Zero-Gate Voltage Drain Current	IDSS*	V <sub>DS</sub> =5V, V <sub>GS</sub> =0	5.0*		38.0*	mA
Cutoff Voltage	V <sub>GS(off)</sub>	V <sub>DS</sub> =5V, I <sub>D</sub> =100μA		-0.9	-2.0	V
Forward Transfer Admittance	yfs	$V_{DS}$ =5V, $V_{GS}$ =0, f=1kHz	20	30		mS
Input Capacitance	Ciss	V <sub>DS</sub> =5V, V <sub>GS</sub> =0, f=1MHz		9.0		pF
Reverse Transfer Capacitance	Crss	V <sub>DS</sub> =5V, V <sub>GS</sub> =0, f=1MHz		2.8		pF
Noise Figure	NF	$V_{DS}$ =5V, Rg=1k $\Omega$ , I $_{D}$ =1mA, f=1kHz		1.5		dB

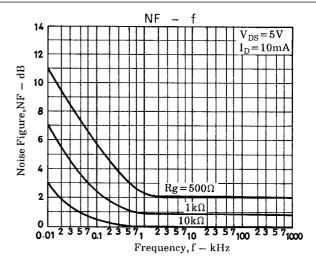
\*: The 2SK443 is classified by I<sub>DSS</sub> as follows (unit: mA): 5.0

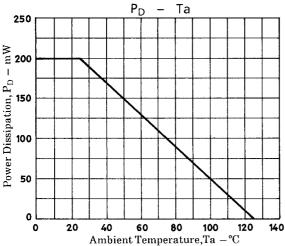
12.0 | 10.0 6 24.0 16.0 38.0 (Note) Marking: AJ

- I<sub>DSS</sub> rank: 5, 6, 7
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