

SANYO	No.659K	2SK223
		N-Channel Silicon Junction FET

High Voltage Driver Applications

Features

- Ultrahigh withstand voltage ($V_{GDS} \geq -80V$).
- Due to low gate leakage currents even at high voltages, the 2SK223 is suitable for a wide range of applications ($I_{GDL} = 1nA/V_{DS} = 50V, I_D = 1mA$).
- High $|y_{fs}|$ ($|y_{fs}| = 20mS/V_{DS} = 30V, f = 1kHz$).

Absolute Maximum Ratings at $T_a = 25^\circ C$

			unit
Drain-to-Source Voltage	V_{DSS}	80	V
Gate-to-Drain Voltage	V_{GDS}	-80	V
Gate Current	I_G	10	mA
Allowable Power Dissipation	P_D	400	mW
Junction Temperature	T_j	125	$^\circ C$
Storage Temperature	T_{stg}	-40 to +125	$^\circ C$

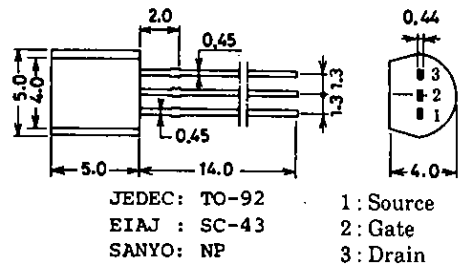
Electrical Characteristics at $T_a = 25^\circ C$

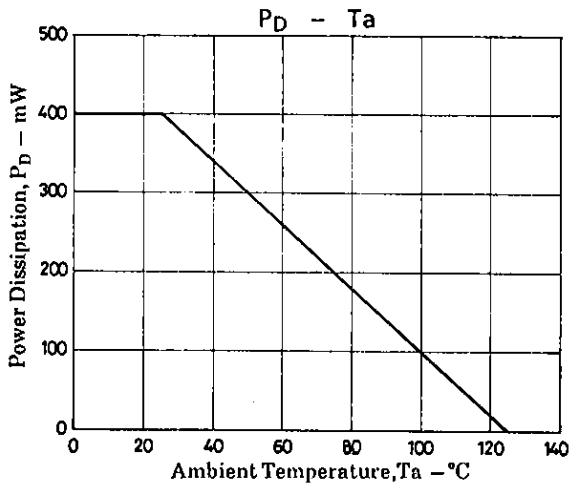
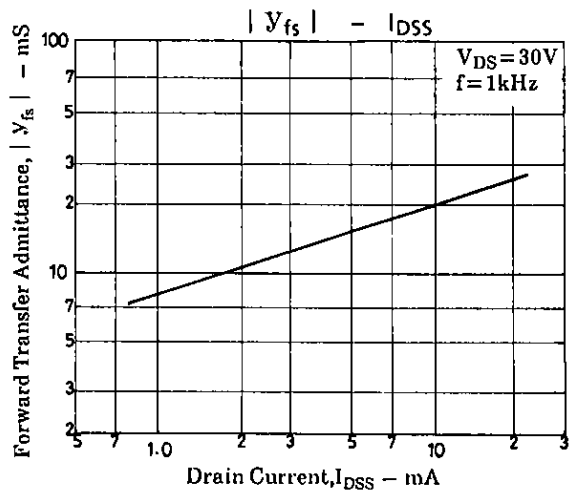
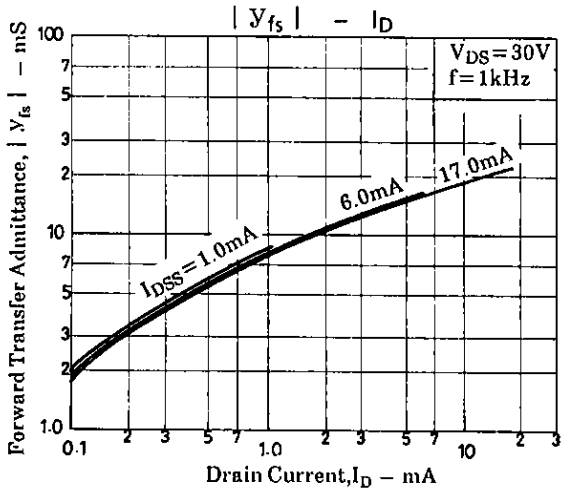
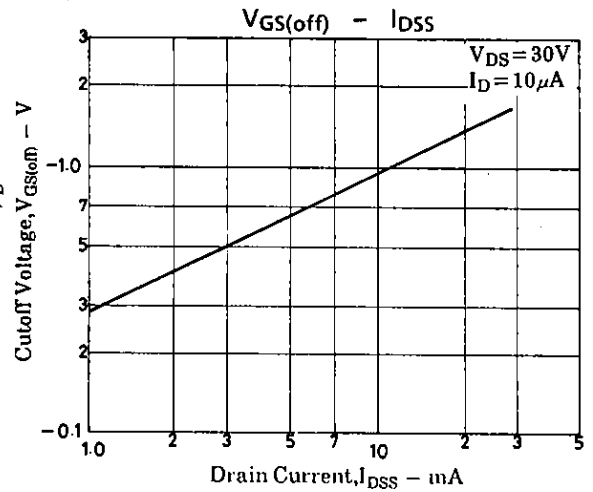
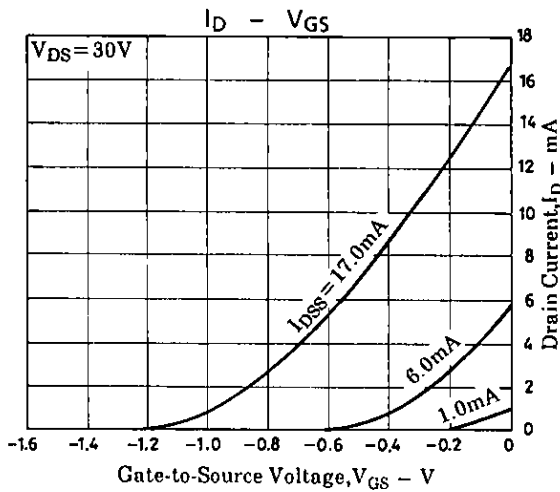
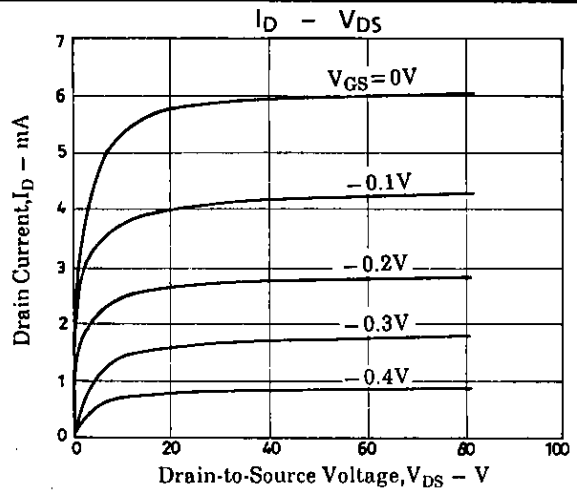
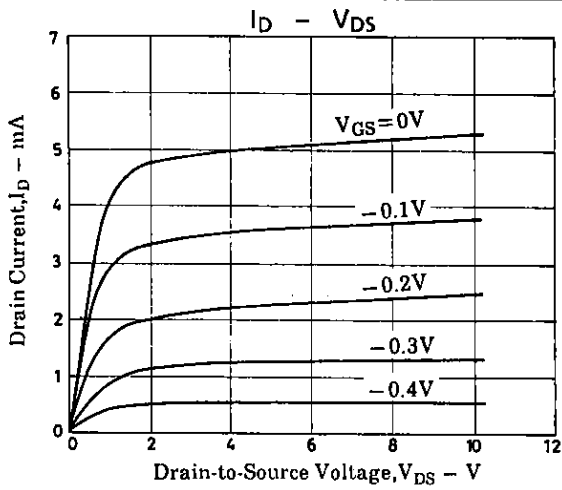
			min	typ	max	unit
Gate-to-Drain Breakdown Voltage	$V_{(BR)GDS}$	$I_G = -100\mu A$	-80			V
Gate Cutoff Current	I_{GSS}	$V_{GS} = -30V, V_{DS} = 0$			-1.0	nA
Drain Current	I_{DSS}	$V_{DS} = 30V, V_{GS} = 0$	1.2*		24*	mA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 30V, I_D = 10\mu A$	-0.75			V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS} = 30V, V_{GS} = 0, f = 1kHz$		20		mS
Input Capacitance	C_{iss}	$V_{DS} = 30V, V_{GS} = 0, f = 1MHz$		12		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = 30V, V_{GS} = 0, f = 1MHz$		2.5		pF
Noise Figure	NF	$V_{DS} = 10V, I_D = 3mA, R_g = 10k\Omega, f = 1kHz$		1.5		dB

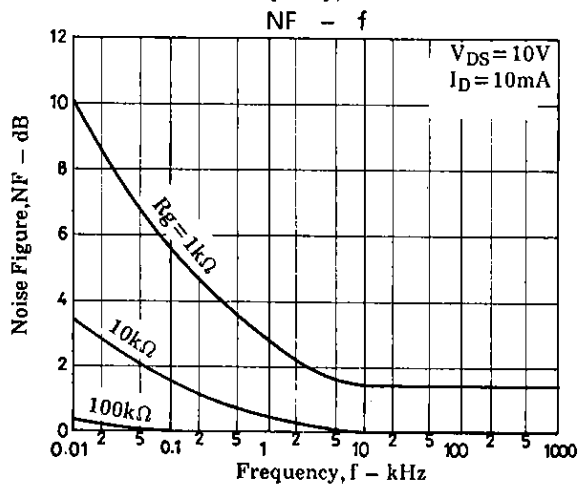
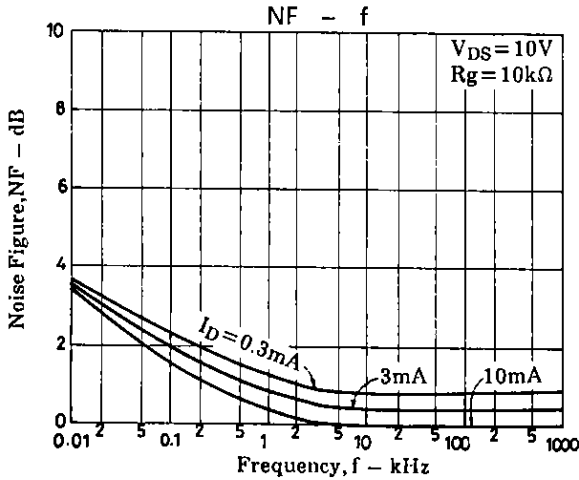
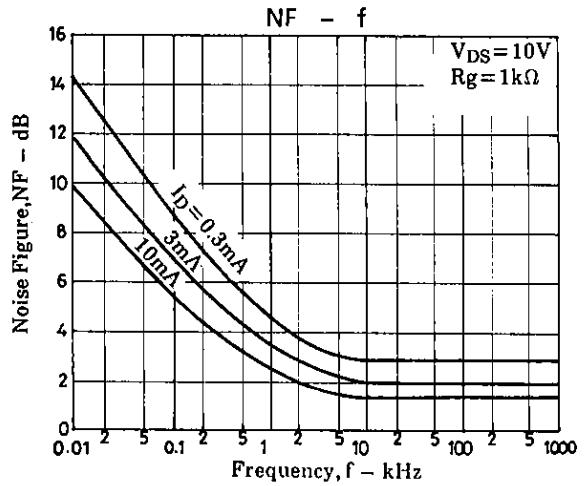
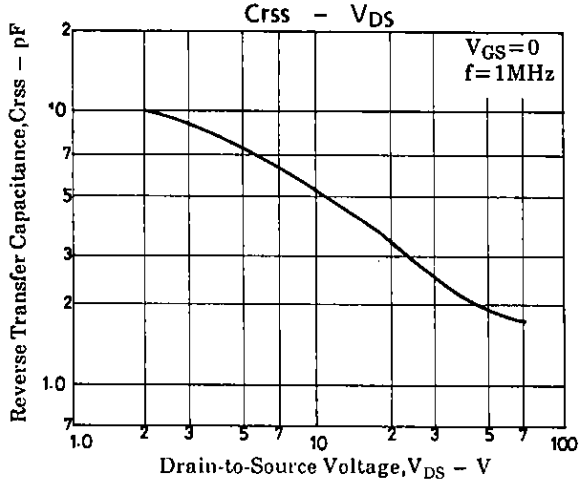
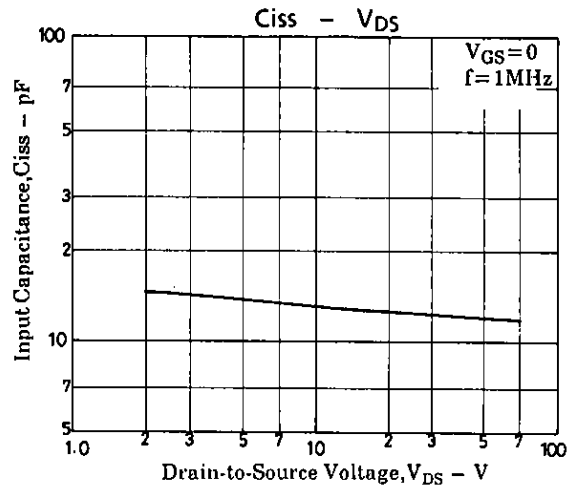
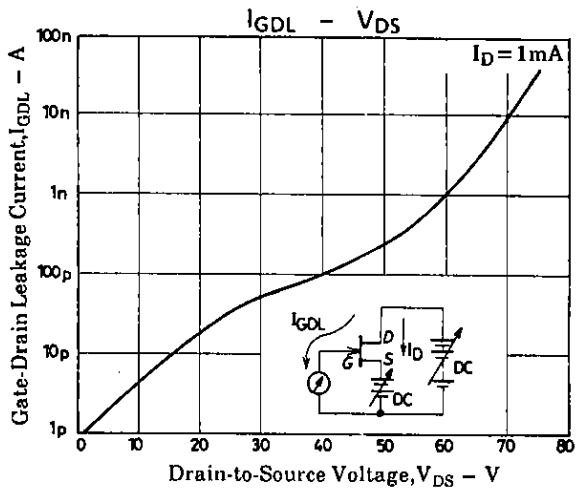
* The 2SK223 is classified by I_{DSS} as follows (unit : mm) :

1.2 D 3.0	2.5 E 6.0	5.0 F 12.0	10.0 G 24.0
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Package Dimensions 2019B
(unit : mm)







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