Ordering number: EN695G

SANYO

No.695G

2SK242

N-Channel Junction Silicon FET

High-Frequency General-Purpose Amp Applications

Features

- Ultrasmall-sized package permitting 2SK242-applied sets to be made small and slim.
- Small Crss (Crss=0.04pF typ).

Absolute Maximum Ratings at Ta=25°C

			unit
Gate-to-Drain Voltage	V_{GDO}	−20	V
Gate Current	I_G	10	mA
Drain Current	I_D	20	mA
Allowable Power Dissipation	P_D	150	mW
Junction Temperature	Tj	125	°C
Storage Temperature	Tstg	−55 to +125	°C

Electrical Characteristics at Ta=25°C

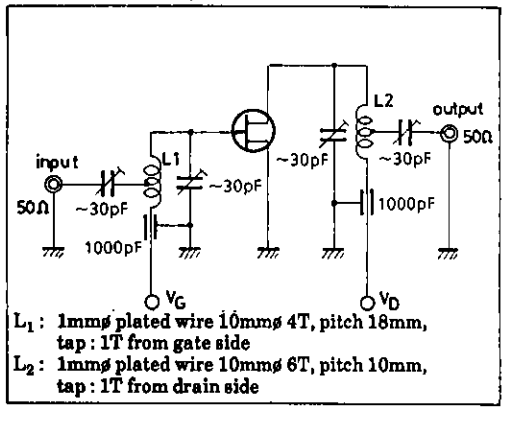
			min	typ	max	unit
G-D Breakdown Voltage	$V_{(BR)GDO}$	$I_G=-10\mu A$	−20			V
Gate Cutoff Current	I_{GSS}	$V_{GS}=-0.5V, V_{DS}=0$			−10	nA
Drain Current	I_{DSS}	$V_{DS}=5V, V_{GS}=0$	0.6※		12.0※	mA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=5V, I_D=10\mu A$			−2.5	V
Forward Transfer Admittance	$\|y_{fs}\|$	(1)$V_{DS}=5V, V_{GS}=0$, f=1kHz	2.0	6.0		mS
	$\|y_{fs}\|$	(2)$V_{DS}=5V, V_{GS}=0$, f=100MHz	2.0	6.0		mS
Input Capacitance	Ciss	$V_{DS}=5V, V_{GS}=0$, f=1MHz		4.0		pF
Reverse Transfer Capacitance	Crss	$V_{DS}=5V, V_{GS}=0$, f=1MHz		0.04	0.15	pF
Output Capacitance	Coss	$V_{DS}=5V, V_{GS}=0$, f=1MHz		4.0		pF
Power Gain	PG	$V_{DS}=5V, V_{GS}=0$, f=100MHz See specified Test Circuit.		24		dB
Noise Figure	NF	〃		3.5	6.0	dB

※ : The 2SK242 is classified by I_{DSS} as follows : (unit : mA)

0.6 2 1.5	1.2 3 3.0	2.5 4 6.0	5.0 5 12.0

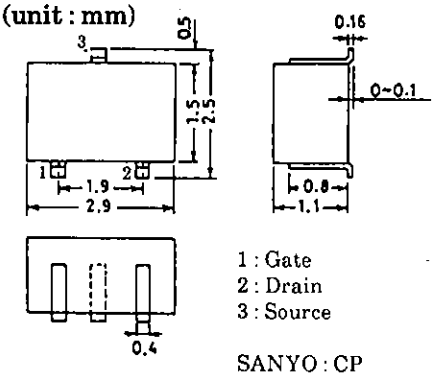
Note) Marking : T
I_{DSS} rank : 2, 3, 4, 5

PG, NF Test Circuit



L_1 : 1mmø plated wire 10mmø 4T, pitch 18mm, tap : 1T from gate side
L_2 : 1mmø plated wire 10mmø 6T, pitch 10mm, tap : 1T from drain side

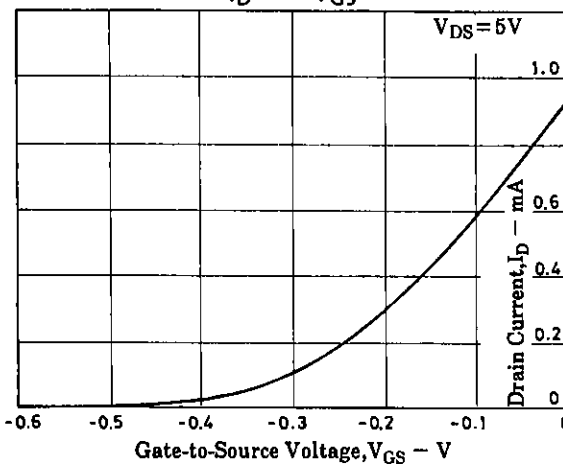
Package Dimensions 2024B
(unit : mm)



1 : Gate
2 : Drain
3 : Source

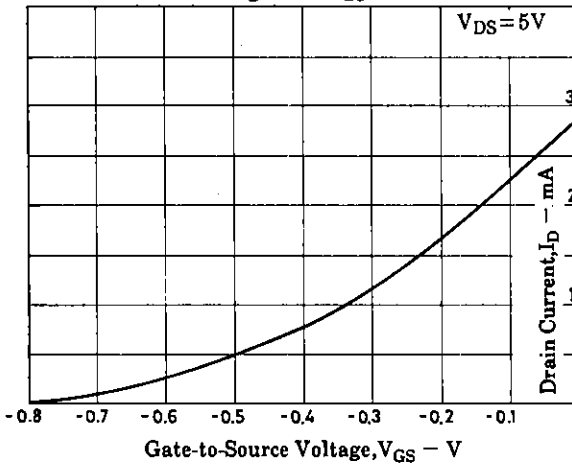
SANYO : CP

I_D – V_{GS}



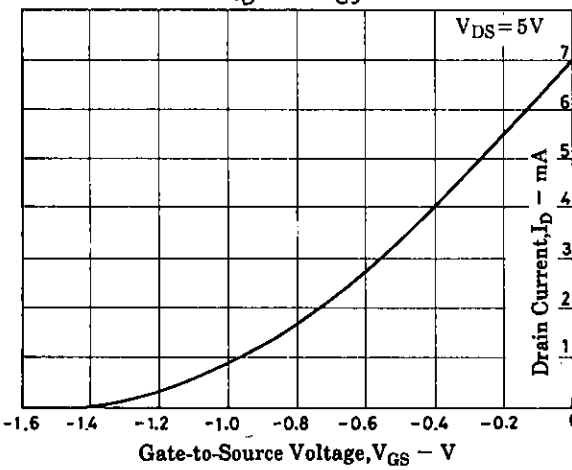
I_D – V_{DS}

I_D – V_{GS}



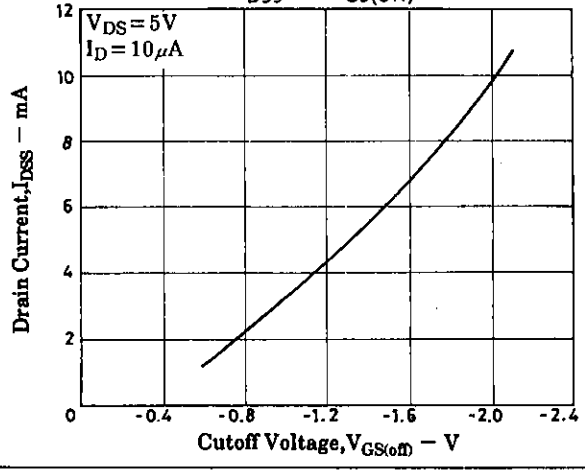
I_D – V_{DS}

I_D – V_{GS}

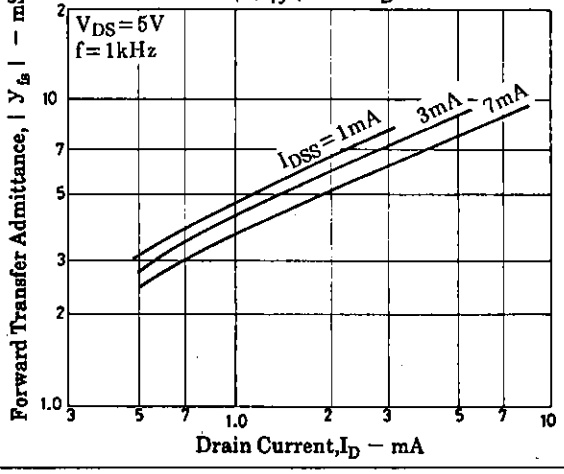


I_D – V_{DS}

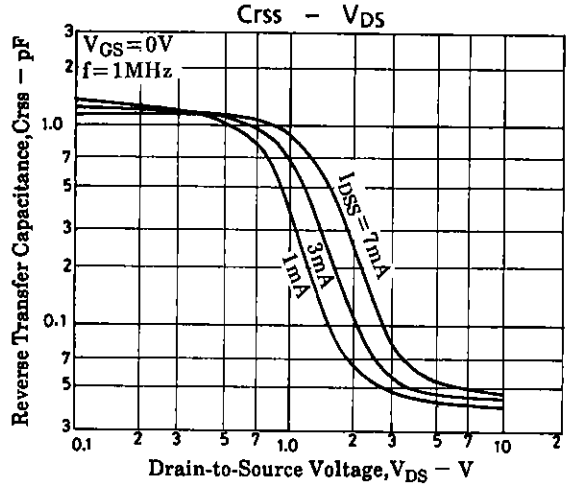
I_{DSS} – $V_{GS(off)}$



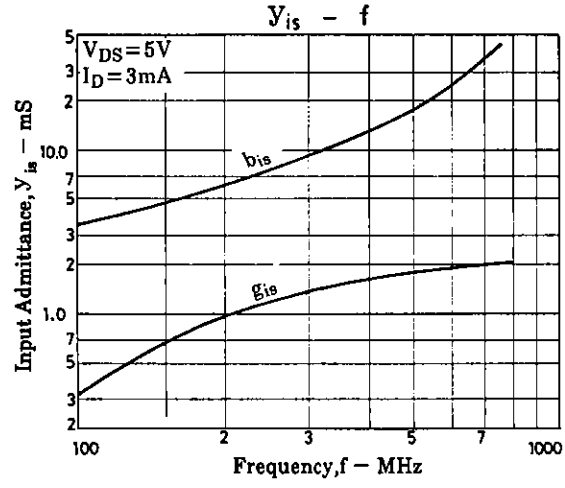
$|y_{fs}|$ – I_D



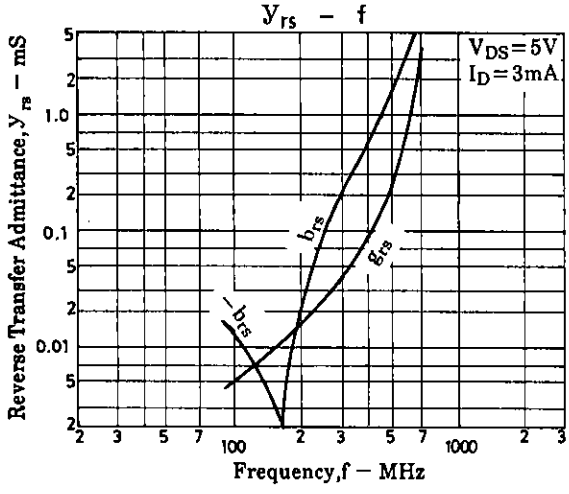
Crss – V_{DS}



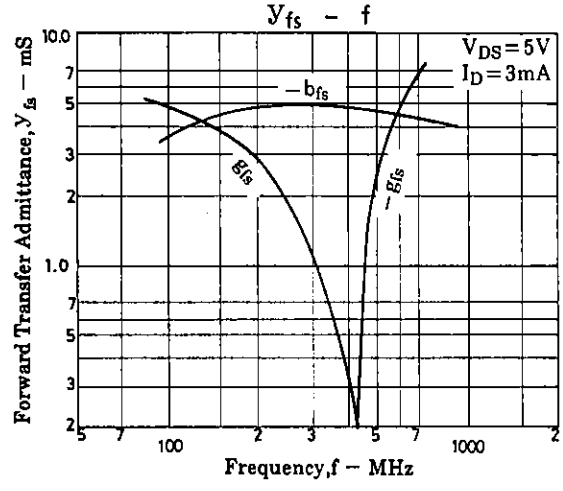
y_{is} – f



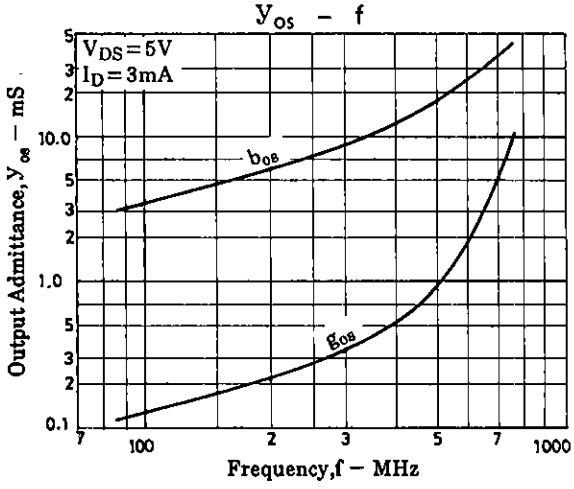
y_{rs} – f



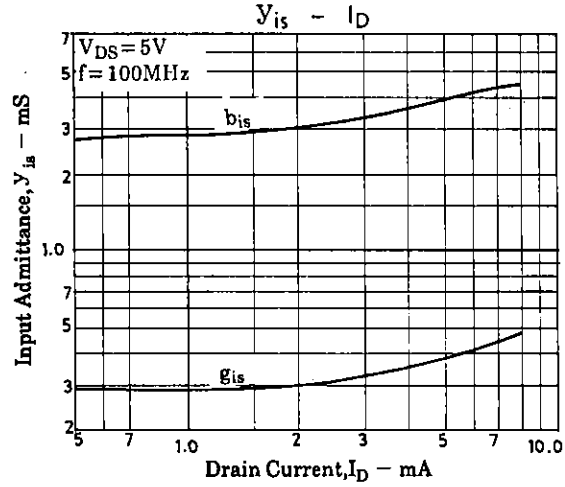
y_{fs} – f



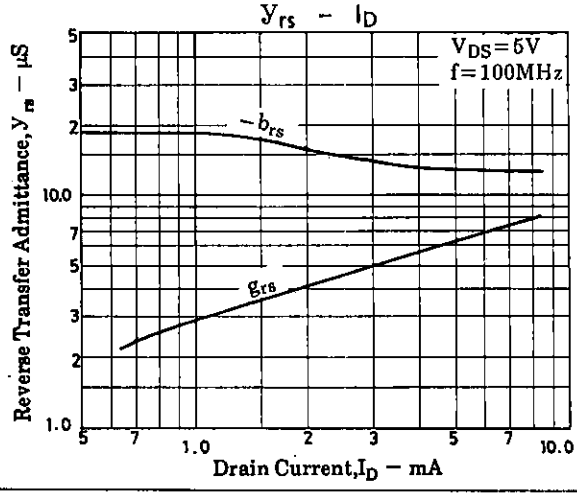
y_{os} – f



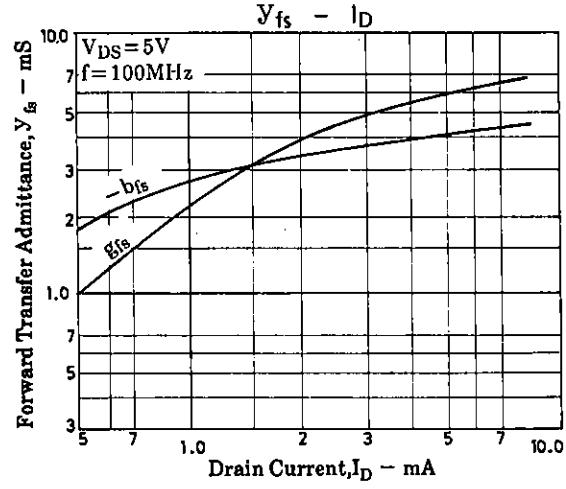
y_{is} – I_D



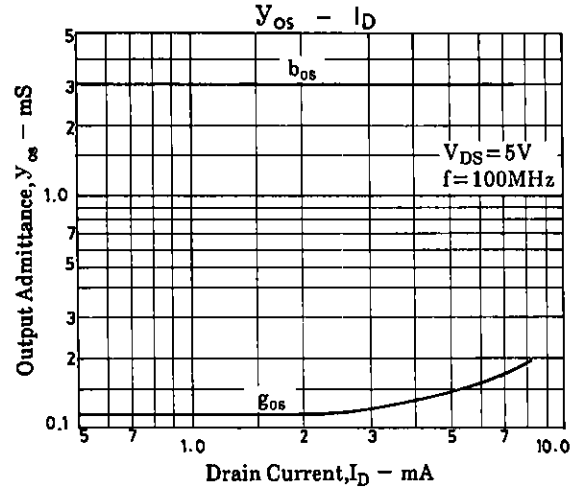
y_{rs} – I_D



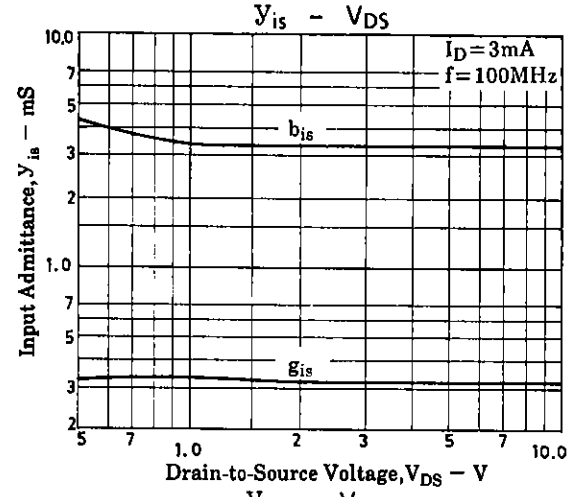
y_{fs} – I_D



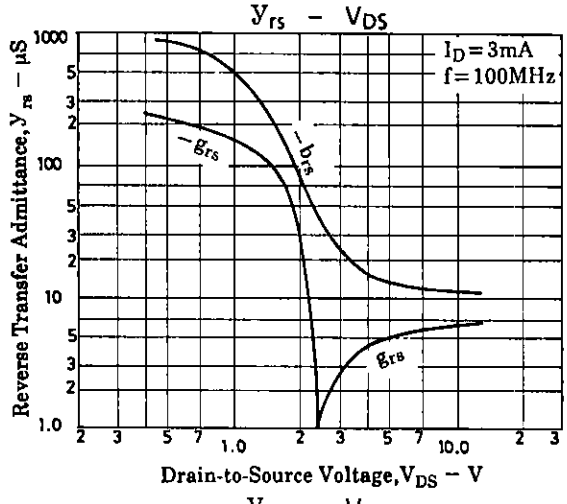
y_{os} – I_D



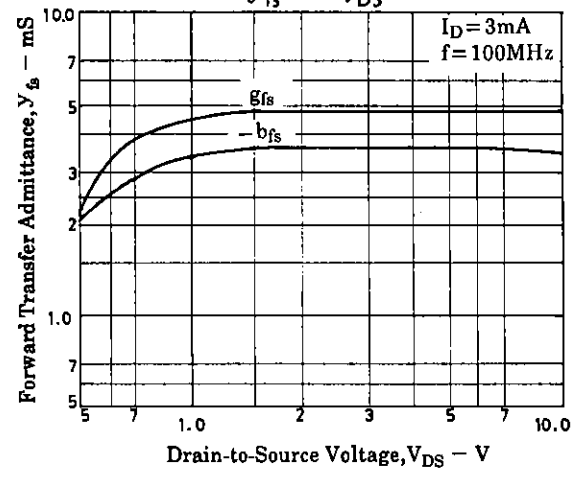
y_{is} – V_{DS}



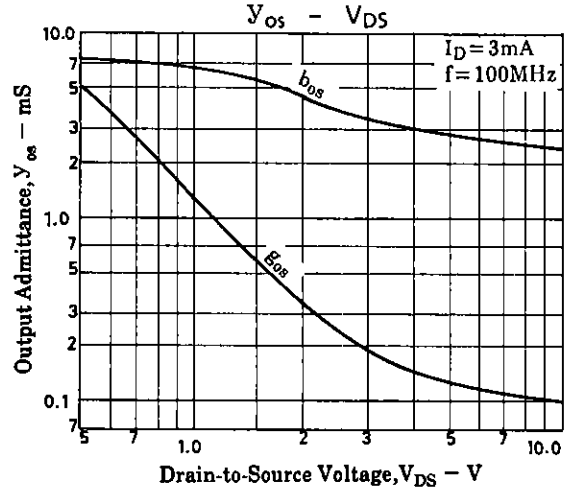
y_{rs} – V_{DS}



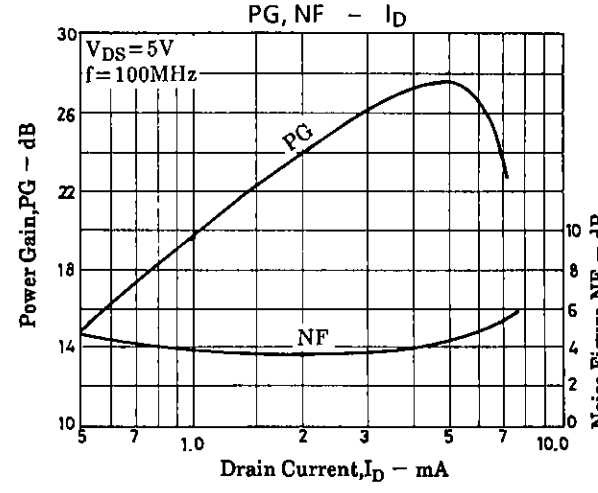
y_{fs} – V_{DS}



y_{os} – V_{DS}



PG, NF – I_D



P_D – Ta