Ordering number:ENN2746A

N-Channel Junction Silicon FET

2SK1065

High-Frequency General-Purpose Amplifier Applications

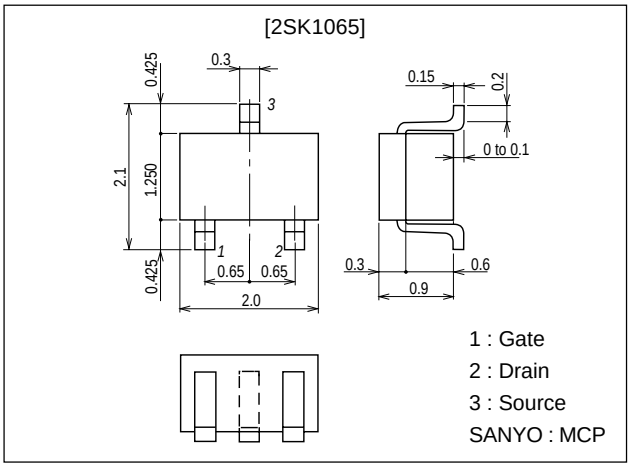
Features

- Ultrasmall package facilitates miniaturization in end products.
- Small Crss (Crss=0.04pF typ).

Package Dimensions

unit:mm

2057A



Specifications

Absolute Maximum Ratings at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings	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		150	˚C
Storage Temperature	Tstg		–55 to +150	˚C

Electrical Characteristics at Ta = 25˚C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gate-to-Drain Breakdown Voltage	$V_{(BR)GDO}$	I_G=–10μA	–20			V
Gate-to-Source Leakage Current	I_{GSS}	V_{GS}=–0.5V, V_{DS}=0			–10	nA
Zero-Gate Voltage Drain Current	I_{DSS}	V_{DS}=5V, V_{GS}=0	1.2*		12.0*	mA
Cutoff Voltage	$V_{GS(off)}$	V_{DS}=5V, I_D=10μA	–0.4	–1.3	–2.5	V
Forward Transfer Admittance	| yfs |1	V_{DS}=5V, V_{GS}=0, f=1kHz	2.4	6.0		mS
	| yfs |2	V_{DS}=5V, V_{GS}=0, f=100MHz	2.4	6.0		mS

* : The 2SK1065 is classified by I_{DSS} as follows (unit : mA) :

Continued on next page.

I_{DSS} rank	3			4			5		
I_{DSS}	1.2	to	3.0	2.5	to	6.0	5.0	to	12.0

(Note) Marking : T
• For CP package version, use the 2SK242.

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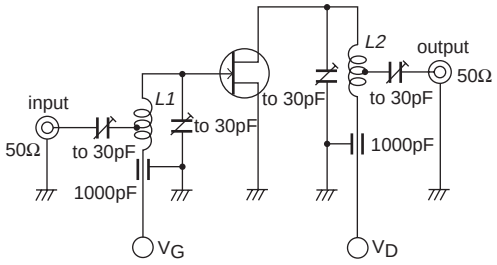
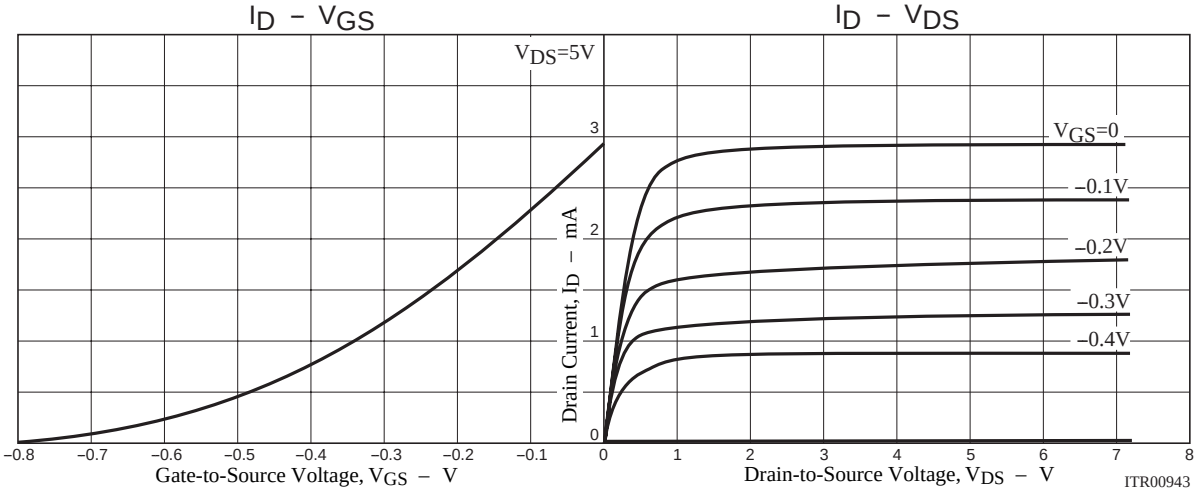
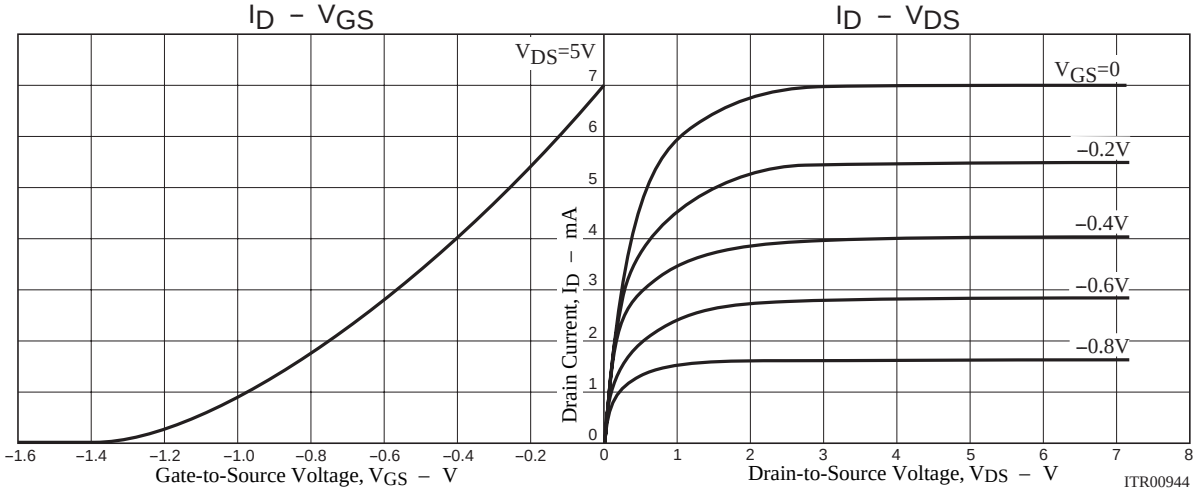
Parameter	Symbol	Conditions	Ratings			Unit
Input Capacitance	Ciss	V_{DS}=5V, V_{GS}=0, f=1MHz		4.0		pF
Reverse Transfer Capacitance	Crss	V_{DS}=5V, V_{GS}=0, f=1MHz		0.04	0.15	pF
Output Capacitance	Coss	V_{DS}=5V, V_{GS}=0, f=1MHz		4.0		pF
Power Gain	PG	V_{DS}=5V, V_{GS}=0, f=100MHz, See specified Test Circuit		24		dB
Noise Figure	NF	See specified Test Circuit		3.5	6.0	dB

PG and NF Test Circuit

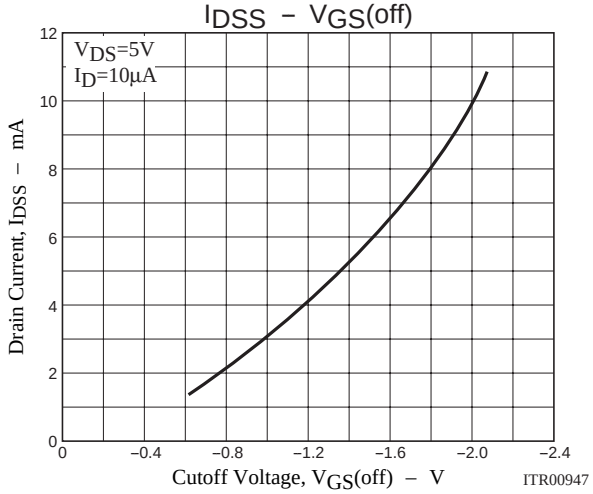


L1 : 1mm ϕ plated wire, 10mm ϕ 4T 18mm pitch, tapped at 1T from gate side
L2 : 1mm ϕ plated wire, 10mm ϕ 6T 10mm pitch, tapped at 1T from gate side

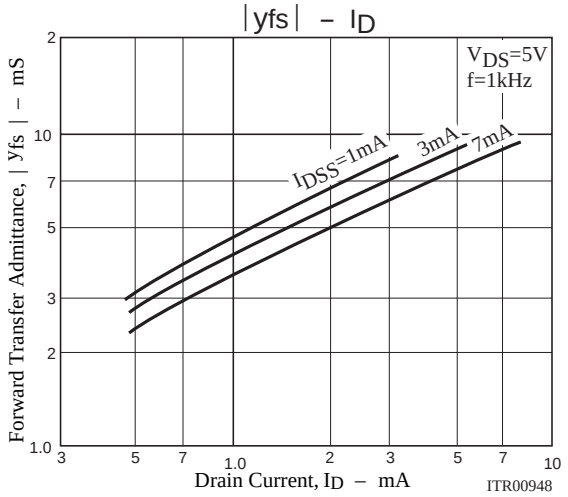




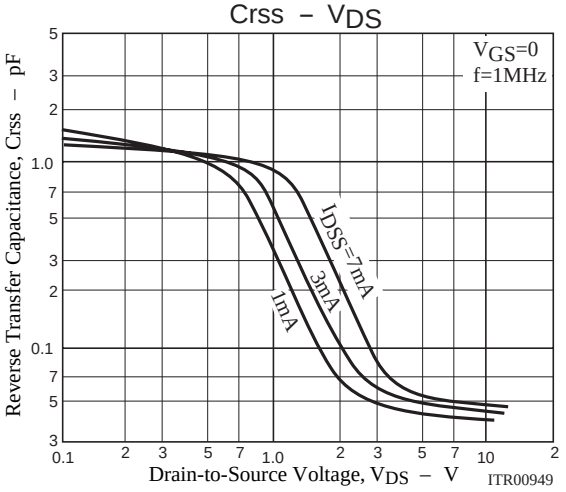
I_{DSS} – $V_{GS(off)}$



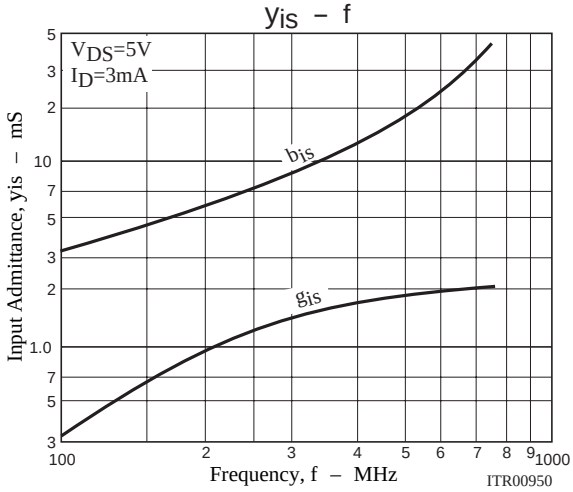
|yfs| – I_D



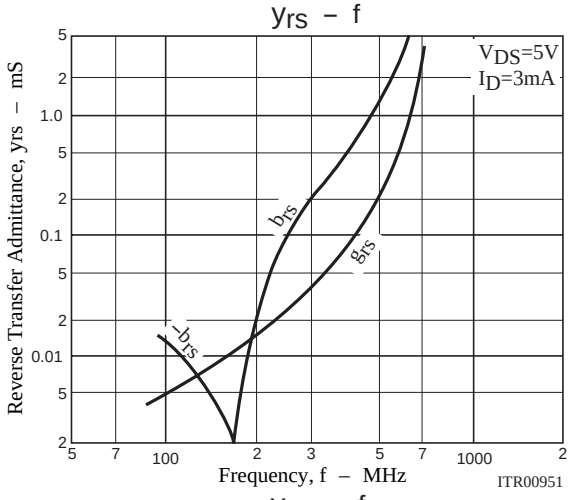
Crss – V_{DS}



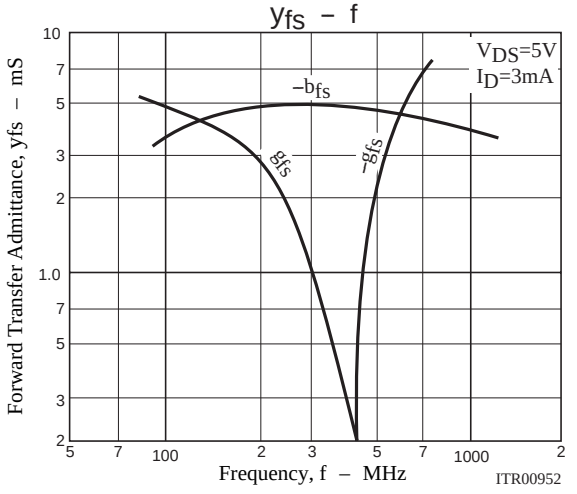
y_{is} – f



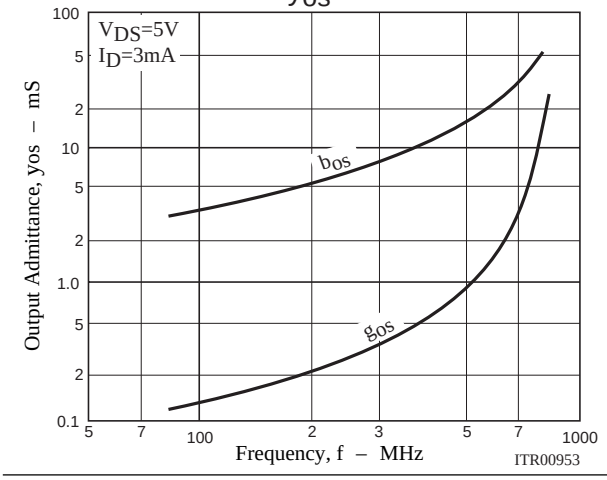
y_{rs} – f



y_{fs} – f



y_{os} – f



y_{is} – I_D