

SAMSUNG SEMICONDUCTOR INC

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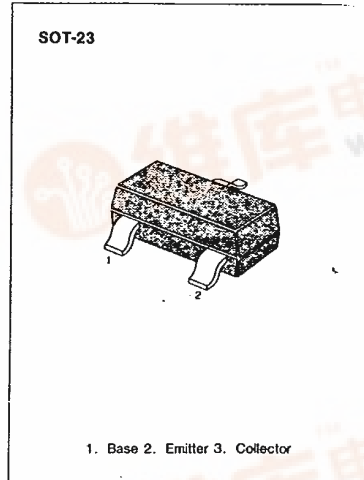
Under Development
SILICON N-CHANNEL JUNCTION FET

**FM TUNER
VHF AMPLIFIER**

- NF = 2.5 dB (TYP)
- |Y_{FS}| = 9.0 mS (TYP)

ABSOLUTE MAXIMUM RATINGS (T_a = 25°C)

Characteristic	Symbol	Rating	Unit
Gate-Drain Voltage	V _{GDO}	-18	V
Gate Current	I _G	10	mA
Power Dissipation	P _D	200	mW
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55~150	°C



3

ELECTRICAL CHARACTERISTICS (T_a = 25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Gate Cut-off Current	I _{GSS}	V _{GS} = -0.5V, V _{DS} = 0			-10	nA
Gate-Drain Breakdown Voltage	V(BR) _{GDO}	I _G = -100μA, Drain	-18			V
Drain Current	I _{DSS}	V _{DS} = 10V, V _{GS} = 0	1.0		10	mA
Gate-Source Cut-off Voltage	V _{GS(off)}	V _{DS} = 10V, I _D = 1μA	0.4		4.0	V
Forward Transfer Admittance	Y _{FS}	V _{DS} = 10V, V _{GS} = 0, f = 1kHz		9		mS
Reverse Transfer Capacitance	C _{rss}	V _{GS} = 10V, f = 1MHz			0.15	pF
Power Gain	C _{PS}	V _{DS} = 10V, f = 100MHz		18		dB
Noise Figuer	NF	V _{DS} = 10V, f = 100MHz		2.5	3.5	dB

I_{DSS} CLASSIFICATION

Classification	O	Y	G
I _{DSS}	1.0-3.0	2.5-6.0	5.0-10

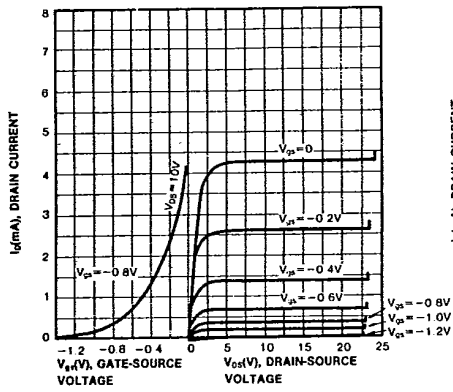


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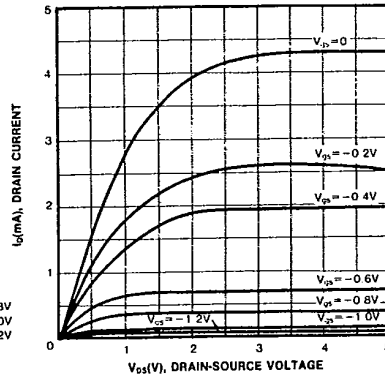
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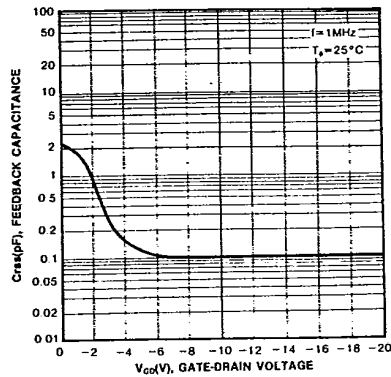
STATIC CHARACTERISTIC



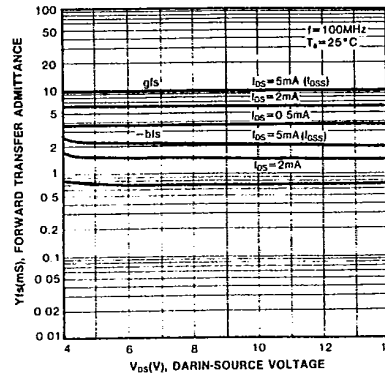
I_D - V_{DS}



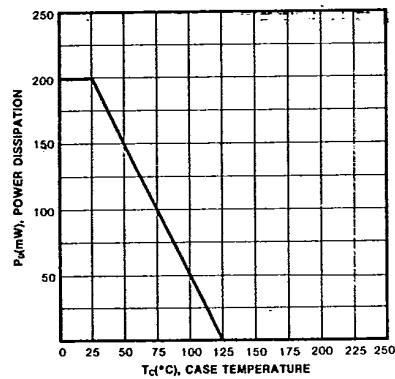
C_{rss} - V_{GD}



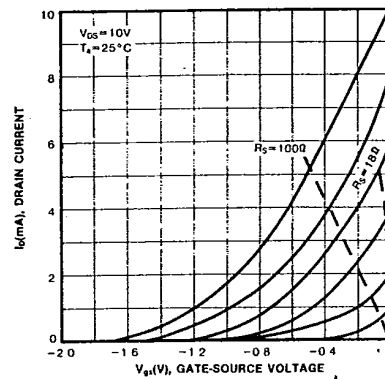
Y_{fs} - V_{DS}



POWER DERATING



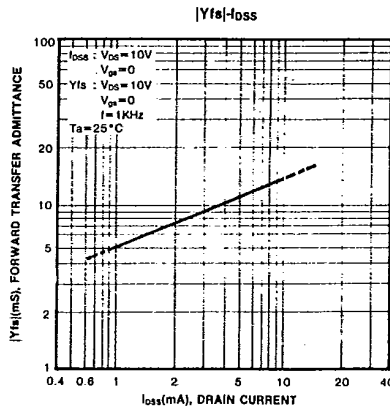
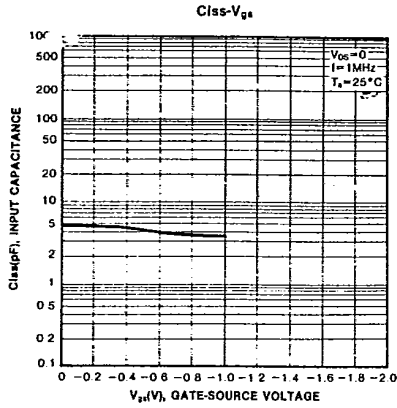
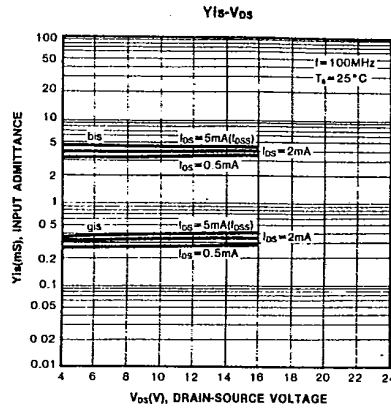
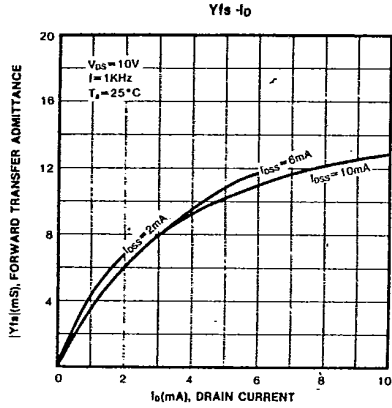
I_D - V_{GS}



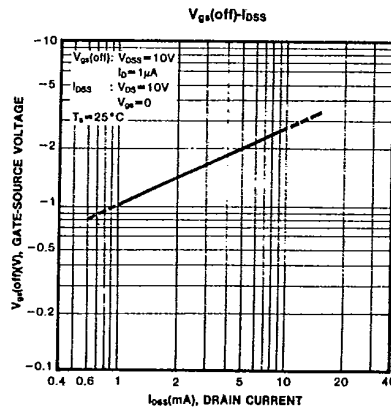
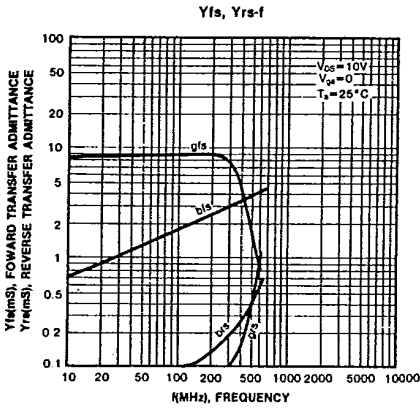
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3



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