

KSK211Under Development
SILICON N-CHANNEL JUNCTION FET**FM TUNER
VHF AMPLIFIER**

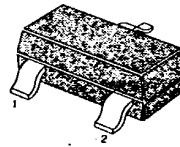
- NF = 2.5 dB (TYP)
- $|Y_{fs}| = 9.0$ mS (TYP)

ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

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	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55~150	$^\circ\text{C}$

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SOT-23



1. Base 2. Emitter 3. Collector

3

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Gate Cut-off Current	I_{GSS}	$V_{GS} = -0.5\text{V}, V_{DS} = 0$			-10	nA
Gate-Drain Breakdown Voltage	$V(BR)_{GDO}$	$I_G = -100\mu\text{A}$, Drain	-18			V
Drain Current	I_{DSS}	$V_{DS} = 10\text{V}, V_{GS} = 0$	1.0		10	mA
Gate-Source Cut-off Voltage	$V_{GS(off)}$	$V_{DS} = 10\text{V}, I_D = 1\mu\text{A}$	0.4		4.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = 10\text{V}, V_{GS} = 0$, $f = 1\text{kHz}$		9		mS
Reverse Transfer Capacitance	C_{rss}	$V_{GS} = 10\text{V}, f = 1\text{MHz}$			0.15	pF
Power Gain	C_{PS}	$V_{DS} = 10\text{V}, f = 100\text{MHz}$		18		dB
Noise Figure	NF	$V_{DS} = 10\text{V}, f = 100\text{MHz}$		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

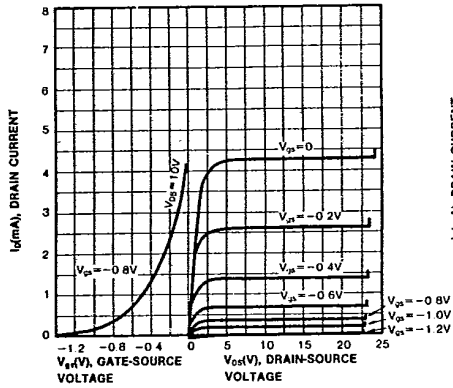


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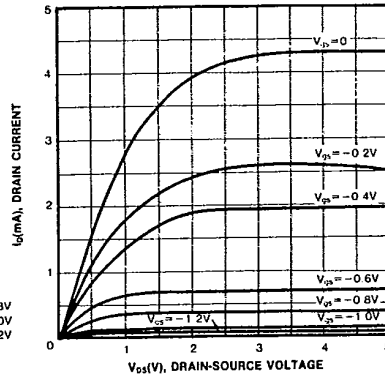
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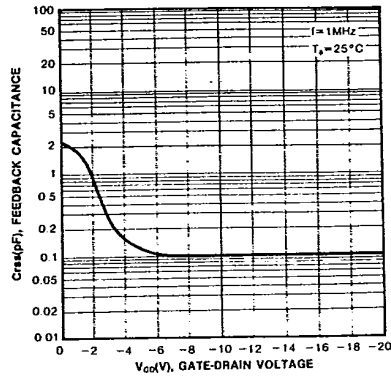
STATIC CHARACTERISTIC



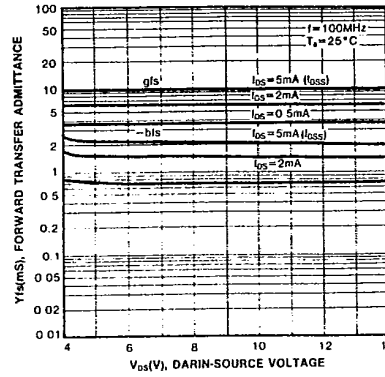
I_D - V_{DS}



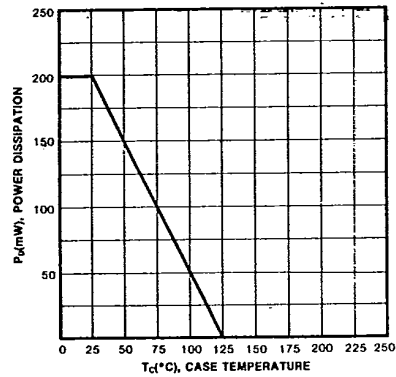
C_{rss} - V_{DD}



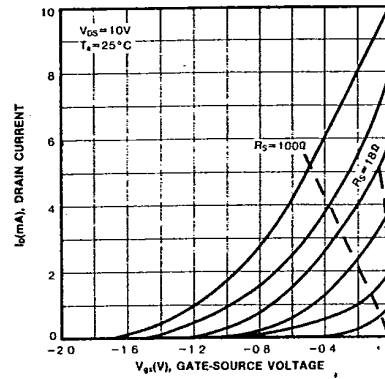
Y_{fs} - V_{DS}



POWER DERATING



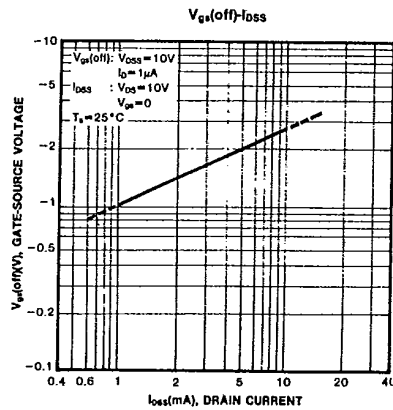
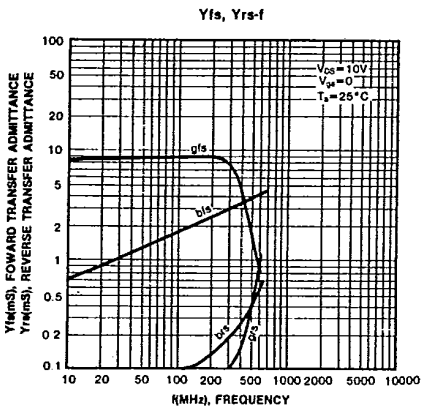
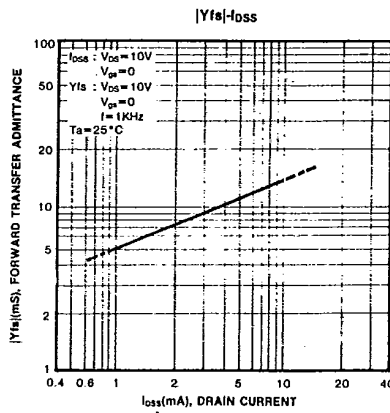
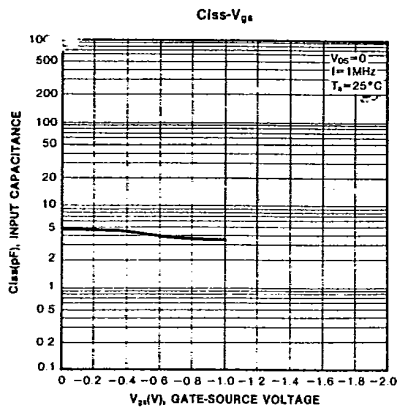
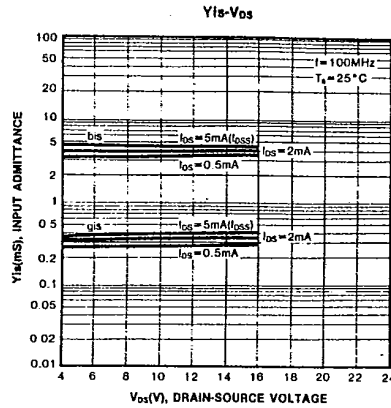
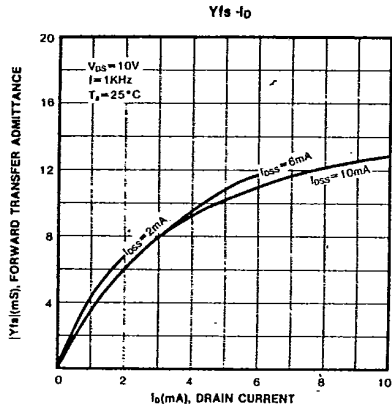
I_D - V_{GS}



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