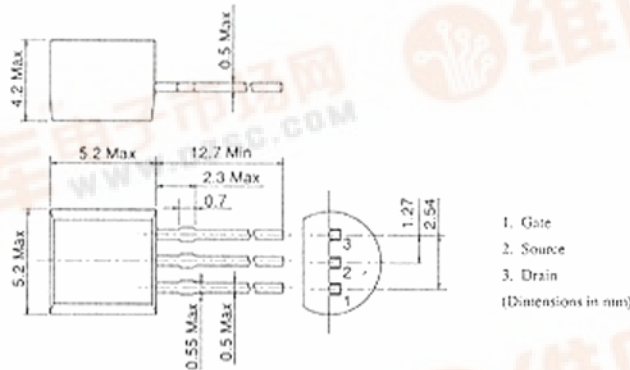


2SK55

SILICON N-CHANNEL JUNCTION FET
VHF AMPLIFIER, MIXER



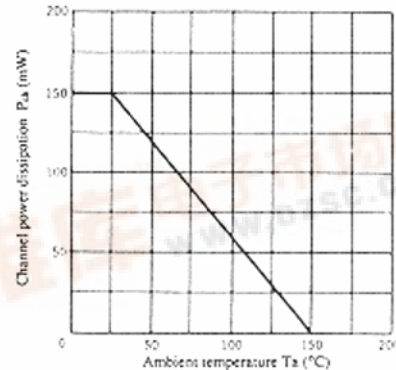
1. Gate
 2. Source
 3. Drain
- (Dimensions in mm)

(JEDEC TO-92)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SK55	Unit
Gate to drain voltage	V _{GD0}	-18	V
Gate current	I _G	10	mA
Channel power dissipation	P _{ch}	150	mW
Channel temperature	T _{ch}	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

MAXIMUM CHANNEL POWER DISSIPATION CURVE



■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

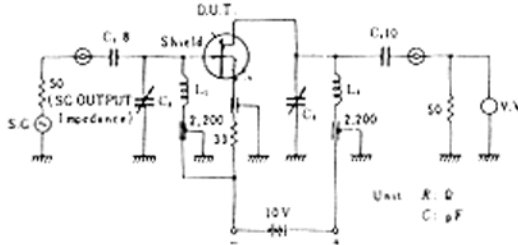
Item	Symbol	Test Condition	min.	typ.	max.	Unit
Gate to drain breakdown voltage	V _{(BR)GDO}	I _G = -100μA, I _S = 0	-18	—	—	V
Gate cutoff current	I _{GSS}	V _{GS} = -0.5V, V _{DS} = 0	—	—	-10	nA
Drain current	I _{DSS} *	V _{DS} = 10V, V _{GS} = 0	3	—	14	mA
Gate to source breakdown voltage	V _{GS(GB)}	V _{DS} = 10V, I _D = 10μA	-0.3	—	-5.5	V
Forward transfer admittance	y _{fs}	V _{DS} = 10V, V _{GS} = 0, f = 1kHz	3	8	—	mS
Input capacitance	C _{iss}	V _{DS} = 10V, V _{GS} = 0, f = 1MHz	—	3	—	pF
Reverse transfer capacitance	C _{rss}	V _{DS} = 10V, V _{GS} = 0, f = 1MHz	—	0.4	0.6	pF
Power gain	PG	V _{DD} = 10V, R _S = 33Ω, f = 100MHz	—	18	—	dB
Noise figure	NF		—	2.0	3.5	dB

* The 2SK55 is grouped by I_{DSS} as follows.

D	E
3 to 7mA	6 to 14mA

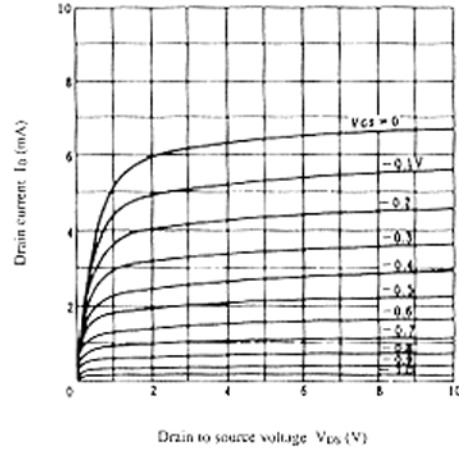
2SK55

POWER GAIN AND NOISE FIGURE TEST CIRCUIT

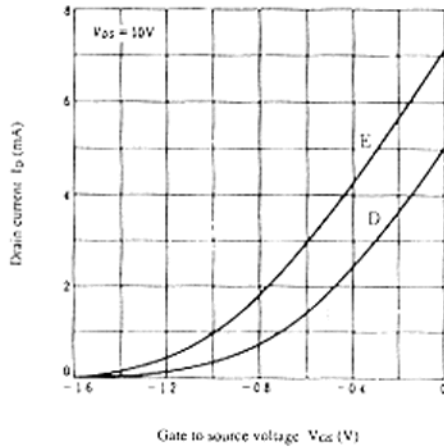


- C_1, C_2 : 30pF max. Variable Air
 L_1 : 3T 1.0mm Copper Ribbon, Tin plated 10mm inside dia. 5.0mm pitch.
 L_2 : 3.5T 1.0mm Copper Ribbon, Tin plated 10mm inside dia. 5.0mm pitch.

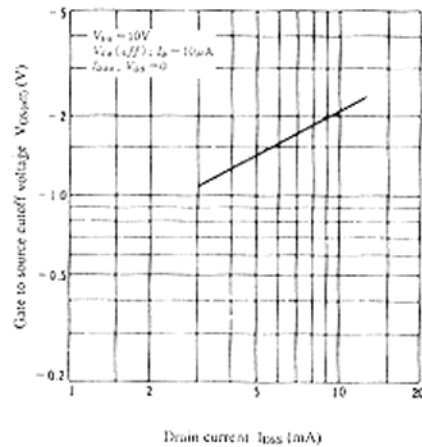
TYPICAL OUTPUT CHARACTERISTICS



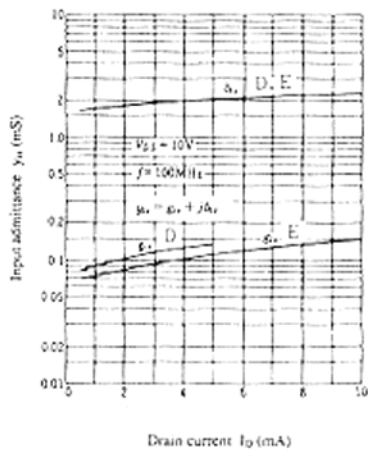
TYPICAL TRANSFER CHARACTERISTICS



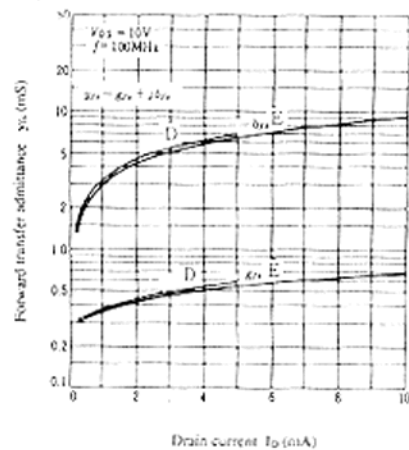
GATE TO SOURCE CUTOFF VOLTAGE VS. DRAIN CURRENT



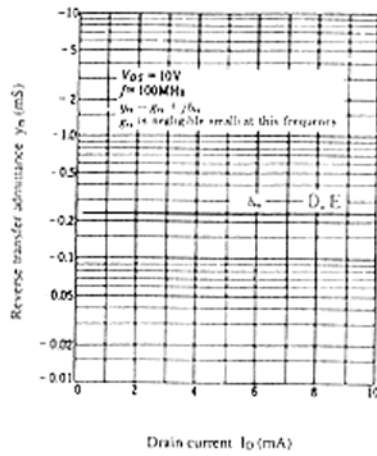
INPUT ADMITTANCE VS. DRAIN CURRENT



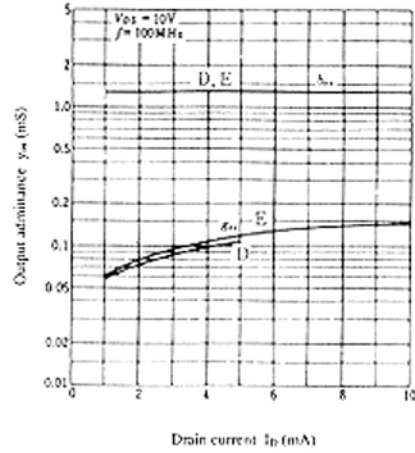
FORWARD TRANSFER ADMITTANCE VS. DRAIN CURRENT



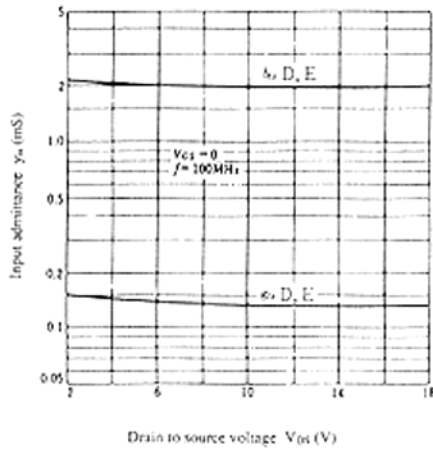
REVERSE TRANSFER ADMITTANCE VS. DRAIN CURRENT



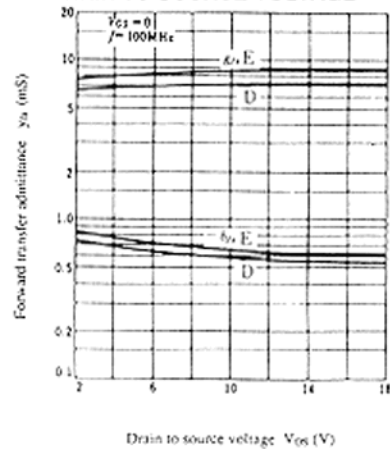
OUTPUT ADMITTANCE VS. DRAIN CURRENT



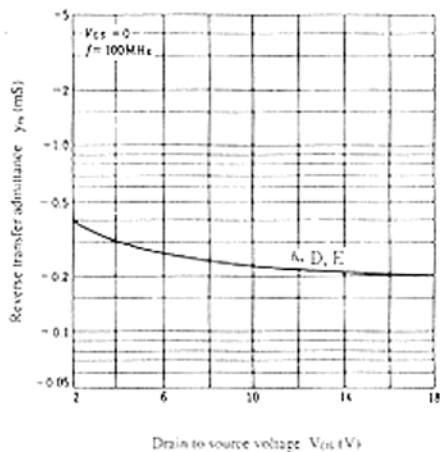
INPUT ADMITTANCE VS. DRAIN TO SOURCE VOLTAGE



FORWARD TRANSFER ADMITTANCE VS. DRAIN TO SOURCE VOLTAGE



REVERSE TRANSFER ADMITTANCE VS. DRAIN TO SOURCE VOLTAGE



OUTPUT ADMITTANCE VS. DRAIN TO SOURCE VOLTAGE

