SILICON N CHANNEL JUNCTION TYPE

3SK22

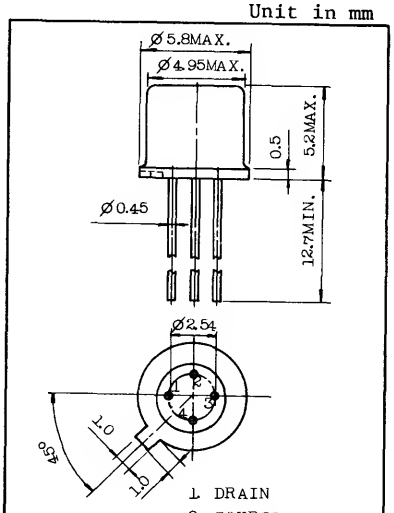
FM TUNER APPLICATIONS.

VHF BAND AMPLIFIER APPLICATIONS.

FEATURES:

- High Power Gain : G_{ps}=20dB (Typ.)(f=100MHz)
- Low Noise Figure : NF=2dB (Typ.)(f=100MHz)
- High Forward Transfer Admittance
  : $|y_{fs}|$ = 7ms (Typ.) (f=1kHz)
- High Input Impedance
  : R_{iss} = 12kΩ (Typ.) (f=100MHz)
- Low Reverse Transfer Capacitance
  : C_{rss}=0.6pF (Max.)

Unit in mm



JEDEC	TO – 72
EIAJ	TC – 7, TB – 9C
TOSHIBA	2 – 5C 1C

Weight : 0.35g

MAXIMUM RATINGS (Ta=25°C)

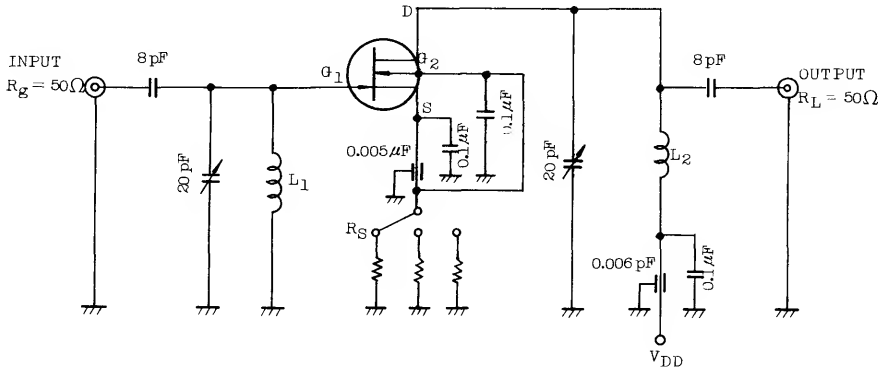
CHARACTERISTIC	SYMBOL	RATING	UNIT
Gate-Drain Voltage	V_{G1DO}, V_{G2DO}	-18	V
Gate Current	I_{G1}, I_{G2}	10	mA
Drain Power Dissipation	P_D	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-65∿150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Gate Leakage Current	I_{GSS}	V_{GS}=-10V, V_{DS}=0, G_1,G_2 Connection	-	-	-100	nA
Gate-Drain Voltage	$V_{(BR)GDO}$	I_G=-100 A, G_1,G_2 Connection	-18	-	-	V
Drain Current	I_{DSS} (Note)	V_{DS}=10V V_{G1S}=V_{G2S}=0	3	-	24	mA
Gate.1-Source Cut-off Voltage	$V_{G1S(OFF)}$	V_{DS}=10V, I_D=1μA, V_{G2S}=0	-1.2	-3	-	V
Gate.2-Source Cut-off Voltage	$V_{G2S(OFF)}$	V_{DS}=10V, I_D=1μA, V_{G1S}=0	-	-	-20	V
Forward Transfer Admittance	$\|y_{fs}\|$	V_{DS}=10V, f=1kHz V_{G1S}=V_{G2S}=0	-	7	-	ms
Reverse Transfer Capacitance	C_{rss}	V_{G1D}=-10V, f=1MHz	-	-	0.6	pF
Power Gain	G_{ps}	V_{DD}=10V, V_{G2S}=0, f=100MHz (Fig.)	-	20	-	dB
Noise Figure	NF	V_{DD}=10V, V_{G2S}=0, f=100MHz (Fig.)	-	2.0	3.5	dB

Note : I_{DSS} Classification Y : 3.0∿7.0, GR : 6.0∿14.0, BL : 12.0∿24.0

Fig. 100 MHz G_{ps} AND NF TEST CIRCUIT



L_1 : 0.8mmØ SILVER PLATED COPPER WIRE, 3T, 10 ID, 10 LENGTH

L_2 : 0.8mmØ SILVER PLATED COPPER WIRE, 3.5T, 10 ID, 10 LENGTH

3SK22 is measured at each group by changing R_S.

GROUP	R_S (Ω)
3SK22 – Y	33Ω ± 5%
3SK22 – GR	82Ω ± 5%
3SK22 – BL	180Ω ± 5%