

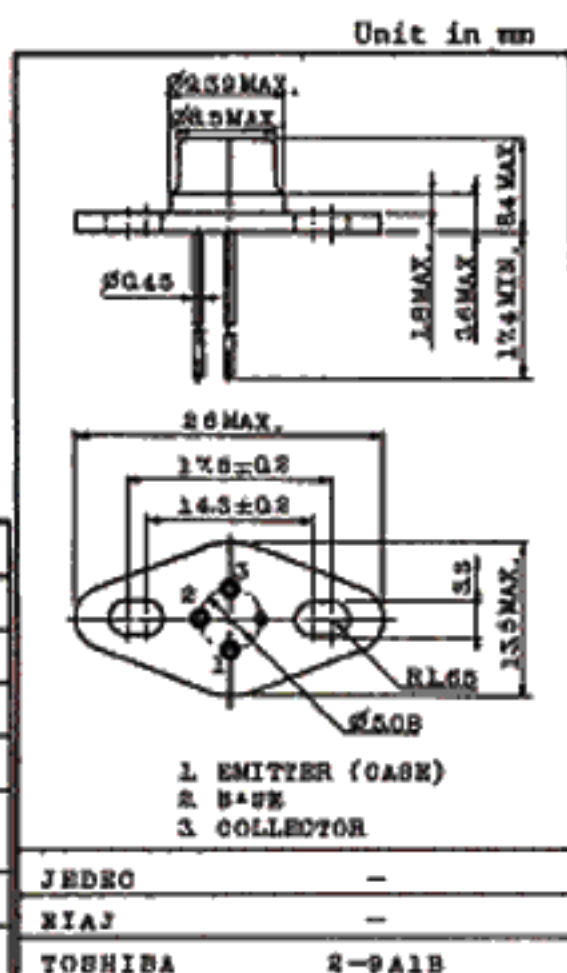
## VHF BAND POWER AMPLIFIER APPLICATIONS.

## FEATURES :

- Output Power :  $P_o=5W$  (Min.)  
( $f=175MHz$ ,  $V_{CC}=13.5V$ ,  $P_i=0.6W$ )
- 100% Tested for Load Mismatch Stress at All Phase Angles with 30:1 VSWR @  $V_{CC}=15V$ ,  $P_i=0.6W$ ,  $f=175MHz$

MAXIMUM RATINGS ( $T_a=25^\circ C$ )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	35	V
Collector-Emitter Voltage	$V_{CEO}$	17	V
Emitter-Base Voltage	$V_{EBO}$	3.5	V
Collector Current	$I_C$	1.4	A
Collector Power Dissipation ( $T_c=25^\circ C$ )	$P_C$	10	W
Junction Temperature	$T_j$	175	$^\circ C$
Storage Temperature Range	$T_{stg}$	-65 ~ 175	$^\circ C$

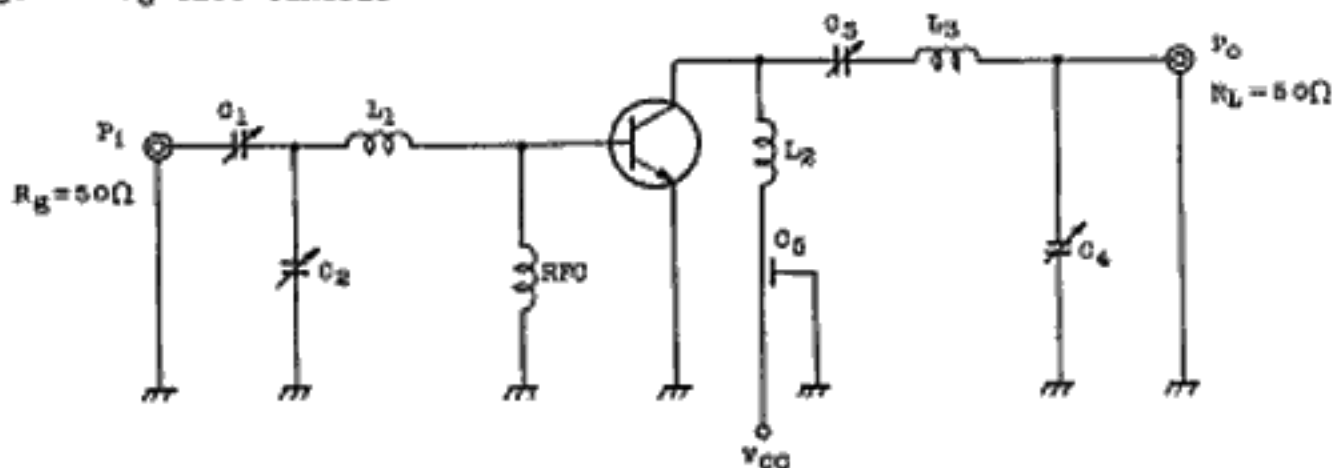


Weight : 3.7g

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=15V$ , $I_B=0$	-	-	1	mA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=2mA$ , $I_B=0$	35	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10mA$ , $I_B=0$	17	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=0.2mA$ , $I_C=0$	3.5	-	-	V
DC Current Gain	$h_{FE}$	$V_{CE}=5V$ , $I_C=1A$	10	-	-	
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10V$ , $I_E=0$ , $f=1MHz$	-	13	25	pF
Output Power	$P_o$	(Fig.)	5.0	6.0	-	W
Power Gain	$G_{pe}$	$V_{CC}=13.5V$ , $f=175MHz$ ,	9.2	10	-	dB
Collector Efficiency	$\eta_c$	$P_i=0.6W$	60	76	-	%

Fig. P<sub>0</sub> TEST CIRCUIT



$C_1, C_2, C_3, C_4$  :  $\sim 30\text{pF}$

$C_5$  : 1000pF FEED THROUGH

$L_1, L_2$  :  $\phi 1.2$  SILVER PLATED COPPER WIRE, 8ID, 1T

$L_3$  :  $\phi 1.2$  SILVER PLATED COPPER WIRE, 8ID, 7/4T

RFC : 1 $\mu$ H CHOKE COIL

