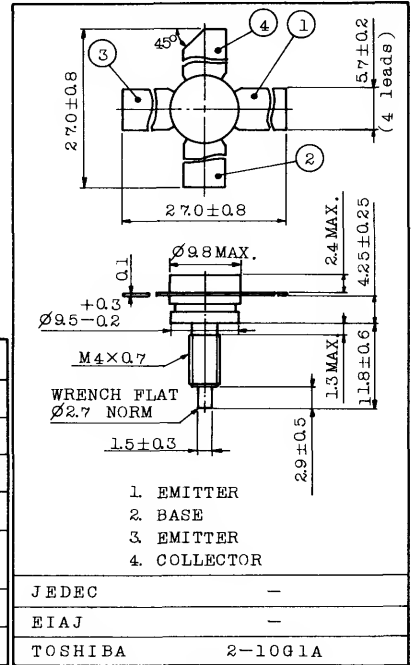


Unit in mm

VHF BAND POWER AMPLIFIER APPLICATIONS.

FEATURES :

- Output Power : $P_o=6W$ (Min.)
($f=175MHz$, $V_{CC}=12.5V$, $P_i=0.5W$)



Mounting Kit No. AC57

Weight : 3.3g

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

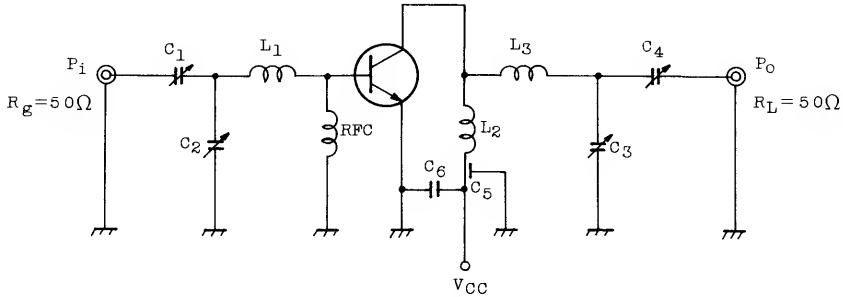
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	35	V
Collector-Emitter Voltage	V_{CEO}	18	V
Emitter-Base Voltage	V_{EBO}	3.5	V
Collector Current	I_C	2	A
Collector Power Dissipation ($T_c=25^\circ C$)	P_C	15	W
Junction Temperature	T_j	175	$^\circ C$
Storage Temperature Range	T_{stg}	-65 ~ 175	$^\circ C$

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=15V$, $I_E=0$	-	-	0.1	mA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=1mA$, $I_E=0$	35	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10mA$, $I_B=0$	18	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=1mA$, $I_C=0$	3.5	-	-	V
DC Current Gain	h_{FE}	$V_{CE}=5V$, $I_C=1A$	10	-	-	
Collector Output Capacitance	C_{ob}	$V_{CB}=10V$, $I_E=0$, $f=1MHz$	-	-	25	pF
Output Power	P_o	(Fig.)	6	7	-	W
Power Gain	G_{pe}	$V_{CC}=12.5V$, $f=175MHz$	10.7	11.5	-	dB
Collector Efficiency	η_c	$P_i=0.5W$	60	68	-	%
Series Equivalent Input Impedance	Z_{in}	$V_{CC}=12.5V$, $f=175MHz$	-	1.1 -j0.5	-	Ω
Series Equivalent Output Impedance	Z_{OUT}	$P_o=6W$	-	5.4 -j10	-	Ω

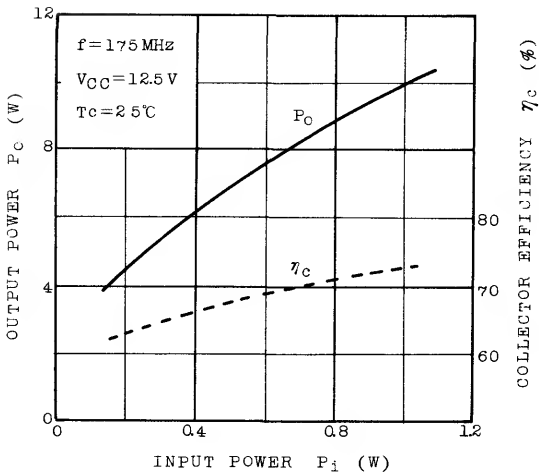
2SC2101

Fig. P_o TEST CIRCUIT



- C_1 : 3 ~ 12pF
- C_2 : 5 ~ 20pF
- C_3, C_4 : 3.5 ~ 30pF
- C_5 : 1000pF FEED THROUGH
- C_6 : 0.01 μ F CERAMIC CONDENSER
- L_1, L_2 : $\phi 1$ SILVER PLATED COPPER WIRE, 6ID, 2T
- L_3 : $\phi 1$ SILVER PLATED COPPER WIRE, 6ID, 1T
- RFC : $\phi 1$ ENAMEL COATED COPPER WIRE, 6ID, 8T

$P_o, \eta_c - P_i$



$P_o - V_{CC}$

