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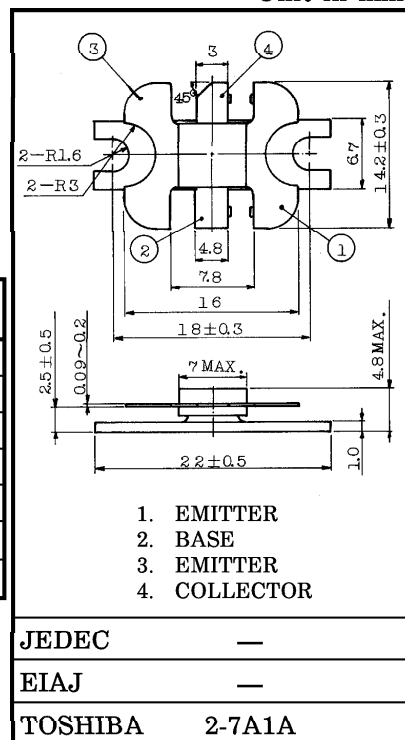
VHF BAND POWER AMPLIFIER APPLICATIONS

Unit in mm

- Output Power : $P_o = 28W$ (Min.)
($f = 175MHz$, $V_{CC} = 12.5V$, $P_i = 4W$)

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	17	V
Emitter-Base Voltage	V_{EBO}	4	V
Collector Current	I_C	6	A
Collector Power Dissipation	P_C	70	W
Junction Temperature	T_j	175	$^\circ C$
Storage Temperature Range	T_{stg}	-65~175	$^\circ C$



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

Weight : 1.6g

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = 15V, I_E = 0$	—	—	2	mA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 10mA, I_E = 0$	40	—	—	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 25mA, I_B = 0$	17	—	—	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 1mA, I_C = 0$	4	—	—	V
DC Current Gain	h_{FE}	$V_{CE} = 5V, I_C = 5A$ *	10	—	—	—
Collector Output Capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0$ $f = 1MHz$	—	110	160	pF
Output Power	P_o	(Fig.)	28	31	—	W
Power Gain	G_p	$V_{CC} = 12.5V, f = 175MHz$	8.4	8.9	—	dB
Collector Efficiency	η_C	$P_i = 4W$	60	71	—	%
Series Equivalent Input Impedance	Z_{in}	$V_{CC} = 12.5V, f = 175MHz$	—	0.95 +j3.0	—	Ω
Series Equivalent Output Impedance	Z_{out}	$P_o = 28W$	—	2.0 +j1.5	—	Ω

* Pulse Test : Pulse Width $\leq 100\mu s$, Duty Cycle $\leq 3\%$

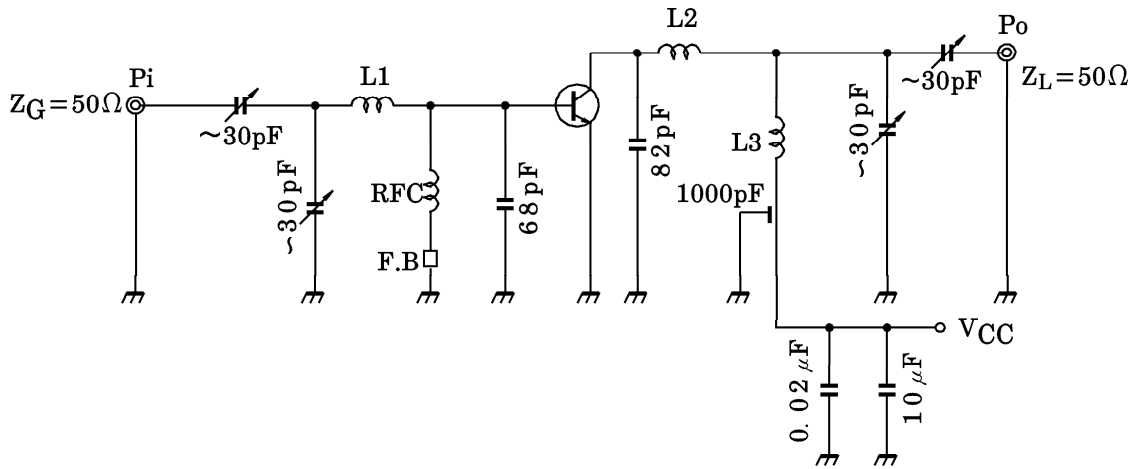
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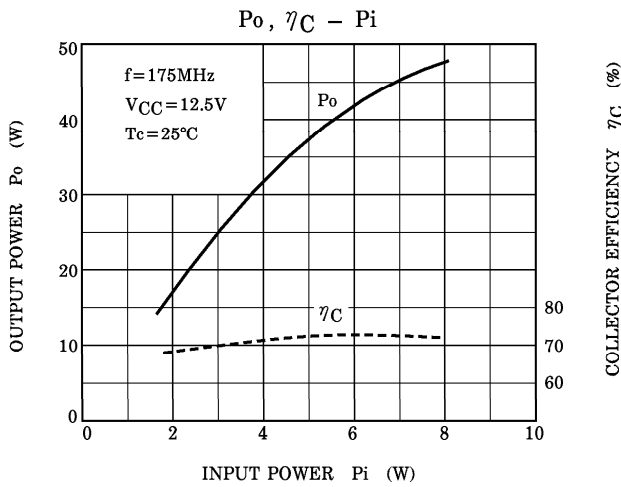
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Fig. Po TEST CIRCUIT



- L1, L2 : $\phi 1$ SILVER PLATED COPPER WIRE, 12ID, 1T
- L3 : $\phi 1$ SILVER PLATED COPPER WIRE, 12ID, 2T
- RFC : $\phi 0.5$ ENAMEL COATED COPPER WIRE, 6ID, 10T
- F.B : FERRITE BEAD



CAUTION

These are only typical curves and devices are not necessarily guaranteed at these curves.