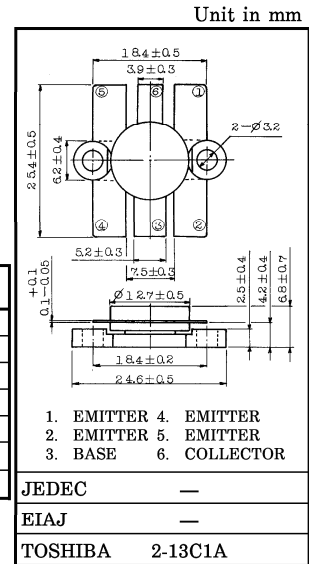


UHF BAND POWER AMPLIFIER APPLICATIONS

- Output Power : $P_o = 40\text{W}$ (Min.)
($f = 470\text{MHz}$, $V_{CC} = 12.5\text{V}$, $P_i = 13\text{W}$)

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	36	V
Collector-Emitter Voltage	V_{CEO}	16	V
Emitter-Base Voltage	V_{EBO}	4	V
Collector Current	I_C	8	A
Collector Power Dissipation	P_C	150	W
Junction Temperature	T_j	175	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-65~175	$^\circ\text{C}$



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

Weight : 5.5g

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = 15\text{V}$, $I_E = 0$	—	—	6	mA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 10\text{mA}$, $I_E = 0$	36	—	—	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 50\text{mA}$, $I_B = 0$	16	—	—	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 1\text{mA}$, $I_C = 0$	4	—	—	V
DC Current Gain	h_{FE}	$V_{CE} = 5\text{V}$, $I_C = 5\text{A}$ *	10	—	150	
Collector Output Capacitance	C_{ob}	$V_{CB} = 12.5\text{V}$, $I_E = 0$ $f = 1\text{MHz}$	—	110	150	pF
Output Power	P_o	(Fig.)	40	45	—	W
Power Gain	G_p	$V_{CC} = 12.5\text{V}$, $f = 470\text{MHz}$	4.88	5.4	—	dB
Collector Efficiency	η_C	$P_i = 13\text{W}$	60	65	—	%
Series Equivalent Input Impedance	Z_{in}	$V_{CC} = 12.5\text{V}$	—	3.0 +j3.2	—	Ω
Series Equivalent Output Impedance	Z_{out}	$f = 470\text{MHz}$, $P_o = 40\text{W}$	—	1.7 +j4.7	—	Ω

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

Note : Above parameters , ratings , limits and conditions are subject to change .