

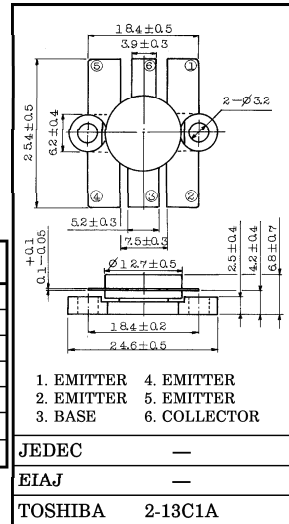
### VHF BAND POWER AMPLIFIER APPLICATIONS

- Output Power :  $P_o = 50W$  (Min.)  
( $f = 175MHz$ ,  $V_{CC} = 12.5V$ ,  $\eta_C = 70%$  (Typ.))
- High Efficiency :  $\eta_C = 70%$  (Typ.)

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

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	$I_C$	14	A
Collector Power Dissipation	$P_C$	150	W
Junction Temperature	$T_j$	175	$^\circ C$
Storage Temperature Range	$T_{stg}$	-65~175	$^\circ C$

Unit in mm



Weight : 5.5g

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 20mA, I_E = 0$	36	—	—	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 50mA, I_B = 0$	16	—	—	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	$C_{ob}$	$V_{CB} = 12.5V, I_E = 0$ $f = 1MHz$	—	—	330	pF
Output Power	$P_o$	$V_{CC} = 12.5V, f = 175MHz$ $P_i = 10W, \eta_C \geq 60%$	50	60	—	W
Series Equivalent Input Impedance	$Z_{in}$	$V_{CC} = 12.5V$ $f = 175MHz, P_o = 50W$	—	1.1 +j3.0	—	$\Omega$
Series Equivalent Output Impedance	$Z_{out}$		—	1.5 +j2.5	—	$\Omega$

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

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