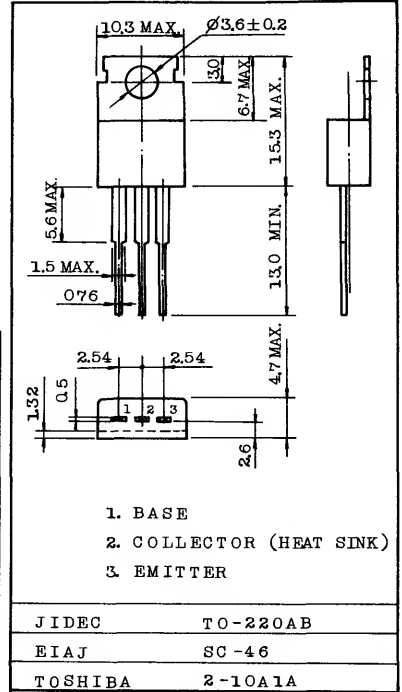


27 MHz POWER AMPLIFIER APPLICATIONS.

FEATURES:

- Recommended for Output Stage Application of AM 4W Transmitter.
- High Power Gain.

Unit in mm



MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V <sub>CBO</sub>	65	V
Collector-Emitter Voltage R <sub>BE</sub> =10Ω	V <sub>CER</sub>	65	V
Emitter-Base Voltage	V <sub>EBO</sub>	4.0	V
Collector Current	I <sub>C</sub>	3	A
Base Current	I <sub>B</sub>	0.4	A
Emitter Current	I <sub>E</sub>	-3	A
Collector Power Dissipation (T <sub>c</sub> =25°C)	P <sub>C</sub>	10	W
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55 ~ 150	°C

Mounting Kit No. AC75  
Weight : 1.9g

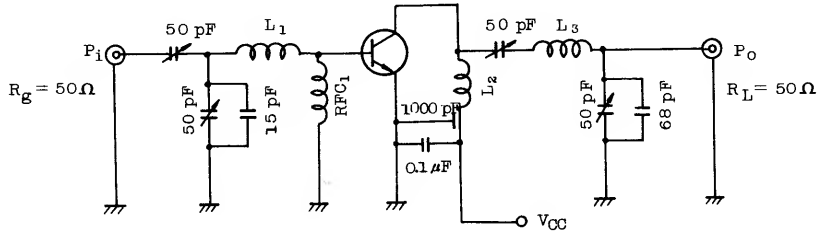
ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Collector Cut-off Current	I <sub>CBO</sub>	V <sub>CB</sub> =30V, I <sub>C</sub> =0	-	-	10	μA	
Collector Cut-off Current	I <sub>CEO</sub>	V <sub>CE</sub> =20V, I <sub>B</sub> =0	-	-	100	μA	
Breakdown Voltage	Collector-Base	V <sub>(BR)CBO</sub>	I <sub>C</sub> =1.0mA, I <sub>E</sub> =0	65	-	-	V
	Collector-Emitter	V <sub>(BR)CER</sub>	I <sub>C</sub> =10mA, R <sub>BE</sub> =10Ω	65	-	-	
	Emitter-Base	V <sub>(BR)EBO</sub>	I <sub>E</sub> =1.0mA, I <sub>C</sub> =0	4.0	-	-	
DC Current Gain	h <sub>FE</sub> (1)	V <sub>CE</sub> =5V, I <sub>C</sub> =0.5A (Note)	15	-	-	-	
	h <sub>FE</sub> (2)	V <sub>CE</sub> =5V, I <sub>C</sub> =1.5A (Note)	10	-	-		
Collector Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =0.5A, I <sub>B</sub> =0.05A	-	0.5	1.0	V	
Transition Frequency	f <sub>T</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> =100mA	100	-	-	MHz	
Collector Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz	-	30	45	pF	
Output Power Fig.	P <sub>o</sub>	V <sub>CC</sub> =12V, P <sub>i</sub> =0.4W I <sub>DC</sub> =415mA(Typ.), f=27MHz	3.0	-	-	W	

Note : Pulse Test : Pulse Width ≤ 300μs, Duty Cycle ≤ 2.0%

# 2SC1678

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



- L<sub>1</sub> : ∅ 0.5 mm ENAMEL COATED COPPER WIRE , 7 T, 8 mm I.D
- L<sub>2</sub> : ∅ 0.5 mm ENAMEL COATED COPPER WIRE , 5 T, 8 mm I.D
- L<sub>3</sub> : ∅ 0.3 mm ENAMEL COATED COPPER WIRE , 18 T, 6 mm I.D
- RFC<sub>1</sub> : ∅ 0.2 mm ENAMEL COATED COPPER WIRE , 76 T, 5 mm I.D