## 2SC1678

27 MHz POWER AMPLIFIER APPLICATIONS.

## FEATURES:

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

MAXIMUM RATINGS (Ta=25°C)

TWINITION (Ta-23 C)			
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	v <sub>cbo</sub>	65	V
Collector-Emitter Voltage $R_{RE}=10\Omega$	VCER	65	V
Emitter-Base Voltage	V <sub>EBO</sub>	4.0	v
Collector Current	IC	3	A
Base Current	IB	0.4	_ A
Emitter Current	IE	-3	A
Collector Power Dissipation (Tc=25°C)	PC	10	W
Junction Temperature	Тj	150	°C
Storage Temperature Range	Tstg	-55 ∿ 150	°C

		Unit in mn
	10.3 MAX.	Ø3.6±0.2
		6.7 MAX.
	1.5 MAX.	JEO MIN
	2.54 2.54	26 47MAX
	1. BASE 2. COLLEC 3. EMITTE	TOR (HEAT SINK)
	JIDEC 7	GA028-0-
	EIAJ 6	3C -46
П	TOSHIBA 2	3-10A1A
	Mounting Kit N	o. AC75

Weight: 1.9g

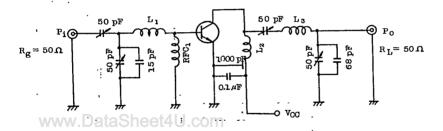
FIFCTRICAL CHADACTERISTICS

ELLCINICAL	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		ICEO	$V_{CE}=20V$ , $I_{B}=0$	-	-	100	μA
Breakdown	Collector-Base	V(BR)CBO	I <sub>C</sub> =1.0mA, I <sub>E</sub> =0	65	-	_	
Voltage `	Collector-Emitter	V(BR)CER	$I_C=10$ mA, $R_{BE}=10$ $\Omega$	65	-	-	v
	Emitter-Base	V(BR)EBO	IE=1.0mA, IC=0	4.0	-	_	
DC Current Gain DataSheet4		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		fŢ	VCE=5V, IC=100mA	100	-	-	MHz
Collector Output Capacitance Co		Cob	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz	-	30	45	рF
Output Power Fig.		P <sub>O</sub>	V <sub>CC</sub> =12V, P <sub>1</sub> =0.4W I <sub>DC</sub> =415mA(Typ.), f=27MHz	3.0	_	_	W

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

Fig.

Po TEST CIRCUIT



 $L_1$ :  $\emptyset$  0.5 mm ENAMEL COATED COPPER WIRE. 7T, 8 mm I.D  $L_2$ :  $\emptyset$  0.5 mm ENAMEL COATED COPPER WIRE. 5T, 8 mm I.D  $L_3$ :  $\emptyset$  0.3 mm ENAMEL COATED COPPER WIRE, 18T, 6 mm I.D RFC1:  $\emptyset$  0.2 mm ENAMEL COATED COPPER WIRE, 76T, 5 mm I.D