

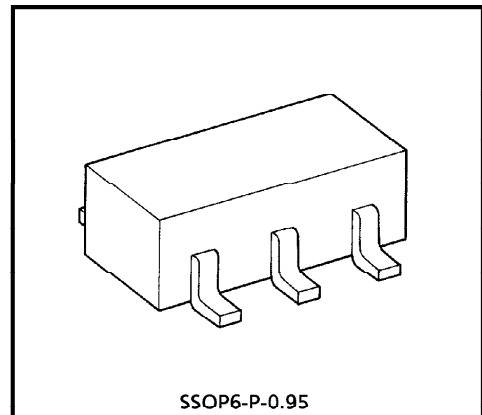
TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

TA4100F

UHF VHF RF, MIX APPLICATION

FEATURES

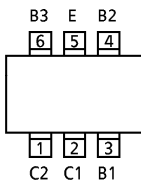
- High f_T . ($f_T = 5\text{GHz}$)
- Differential Circuit is Composed of 3 Transistors.



SSOP6-P-0.95

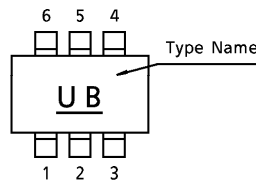
Weight : 0.013g (Typ.)

PIN ASSIGNMENT (TOP VIEW)



C ... COLLECTOR
 B ... BASE
 E ... EMITTER

MARKING



MAXIMUM RATING (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	10	V
Collector-Emitter Voltage	V_{CEO}	5	V
Collector Current	I_C	15 (*1), 30 (*2)	mA
Total Power Dissipation	P_D (*3)	300	mW
Operating Temperature	T_{opr}	-40~85	°C
Storage Temperature Range	T_{stg}	-55~125	°C

- (*1) Q1, Q2 (*2) Q3
 (*3) When mounted on the glass epoxy board of 2.5cm² × 1.6t

961001EBA2

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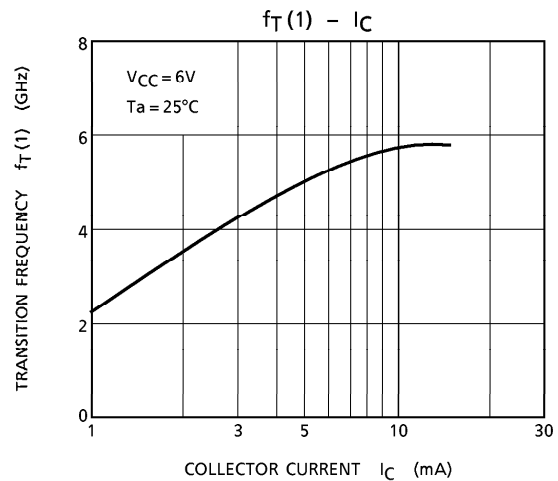
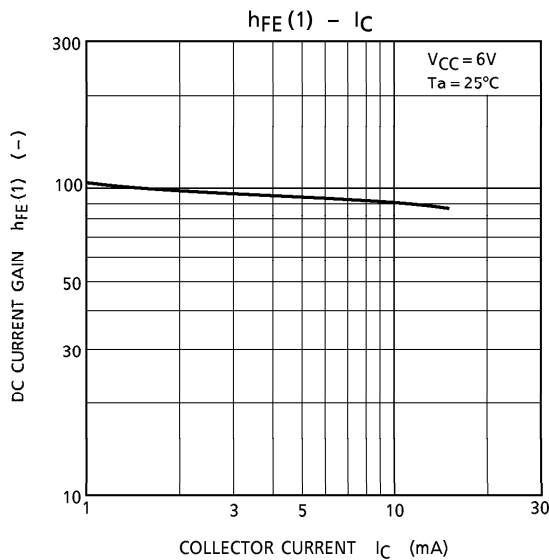
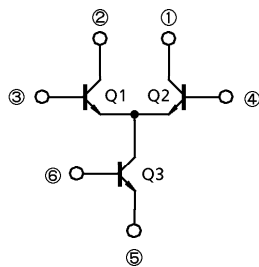
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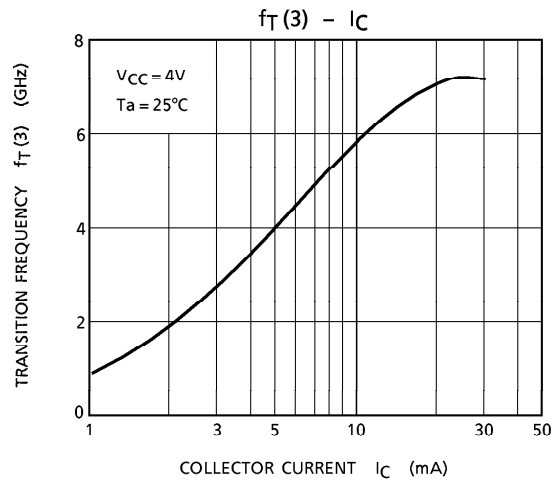
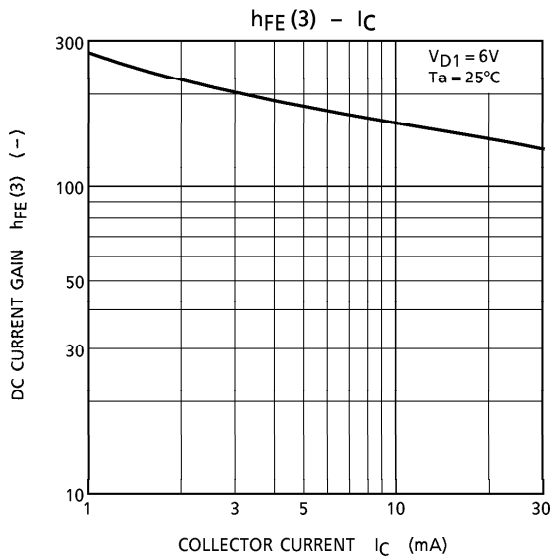
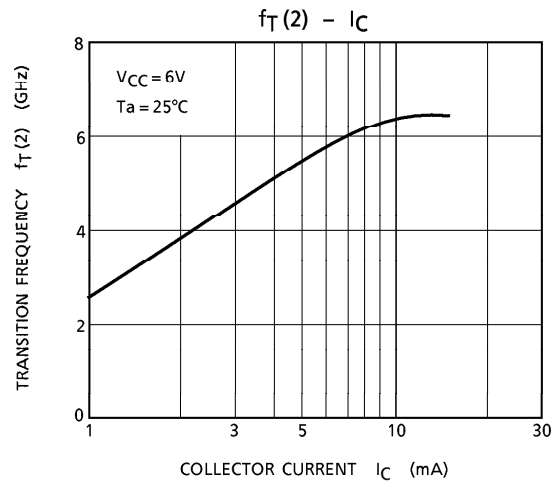
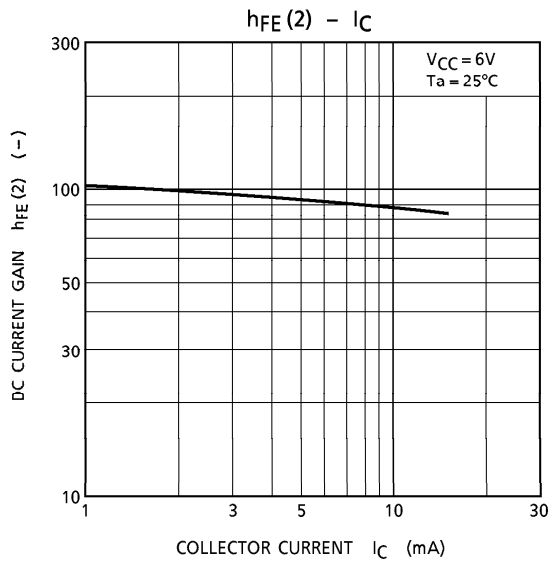
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector-Emitter Voltage	V _{CEO} (1)	—	I _{C1} = 1.0mA, (I _{B3} = 1mA)	5	—	—	V
	V _{CEO} (2)	—	I _{C2} = 1.0mA, (I _{B3} = 1mA)	5	—	—	
	V _{CEO} (3)	—	I _{B1} (I _{C3}) = 1.0mA	5	—	—	
DC Current Gain	h _{FE} (1)	—	V _{C1} = 6V, I _{C1} = 5mA, (I _{B3} = 1mA)	50	100	160	—
	h _{FE} (2)	—	V _{C2} = 6V, I _{C1} = 5mA, (I _{B3} = 1mA)	50	100	160	
	h _{FE} (3)	—	V _{B1} (V _{C3}) = 6V, I _{B1} (I _{C3}) = 10mA	70	140	250	
Transition Frequency	f _T (1)	—	V _{C1} = 6V, I _{C1} = 5mA, (I _{B3} = 1mA)	3.5	5.0	7.0	GHz
	f _T (2)	—	V _{C2} = 6V, I _{C2} = 5mA, (I _{B3} = 1mA)	3.5	5.0	7.0	
	f _T (3)	—	V _{B1} (V _{C3}) = 4V, I _{B1} (I _{C3}) = 10mA	3.5	5.0	7.0	

- ※ (1) ... Characteristics of Q1
- (2) ... Characteristics of Q2
- (3) ... Characteristics of Q3

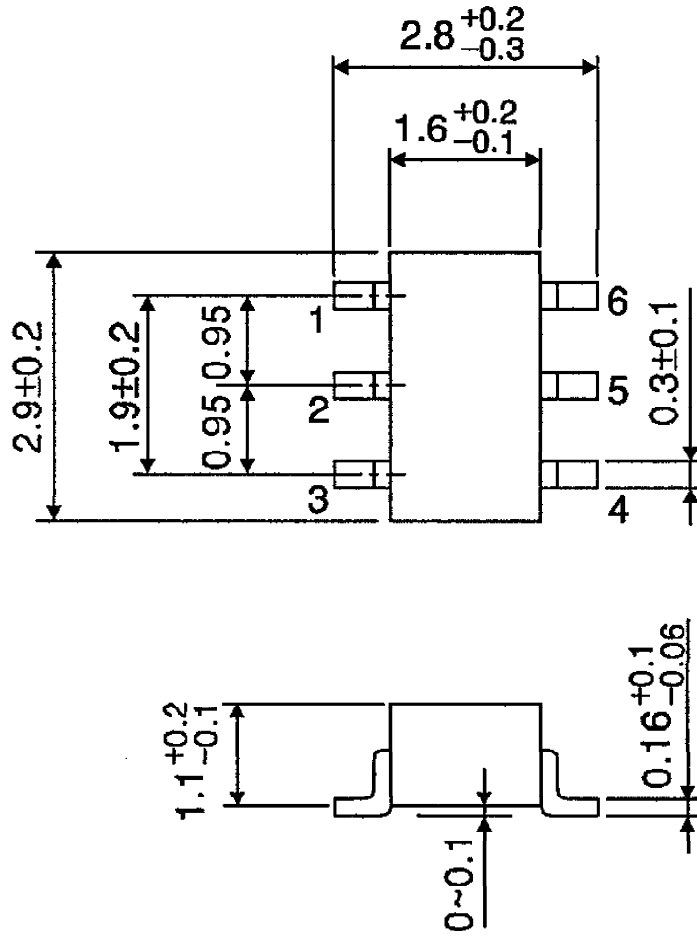
EQUIVALENT CIRCUIT





OUTLINE DRAWING
SSOP6-P-0.95

Unit : mm



Weight : 0.013g (Typ.)