2SA1144

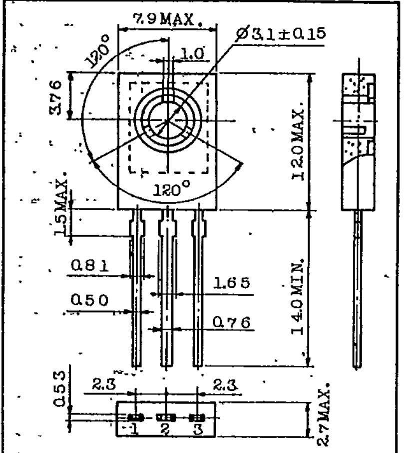
SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

AUDIO FREQUENCY AMPLIFIER APPLICATIONS.

FEATURES:

- Complementary to 2SC2704.
- Small Collector Output Capacitance : C_{ob}=2.5pF(Typ.)
- High Transition Frequency : f_T=200MHz(Typ.)

Unit in mm



1. EMITTER
2. COLLECTOR(HEAT SINK)
3. BASE

JEDEC	TO-126
EIAJ	—
TOSHIBA	2-8F1A

Mounting Kit No. AC46C
Weight : 0.72g

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-150	V
Collector-Emitter Voltage	V_{CEO}	-150	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-50	mA
Base Current	I_B	-5	mA
Collector Power Dissipation (Tc=25°C)	P_C	10	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=-150V, I_E=0	-	-	-0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=-5V, I_C=0	-	-	-0.1	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=-1mA, I_B=0	-150	-	-	V
DC Current Gain	h_{FE} (Note)	V_{CE}=-5V, I_C=-10mA	80	-	240	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-10mA, I_B=-1mA	-	-	-1.0	V
Base-Emitter Voltage	V_{BE}	V_{CE}=-5V, I_C=-10mA	-	-	-0.8	V
Transition Frequency	f_T	V_{CE}=-10V, I_C=-10mA	-	200	-	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz	-	2.5	-	pF

Note: h_{FE} Classification   O:80~160,   Y:120~240

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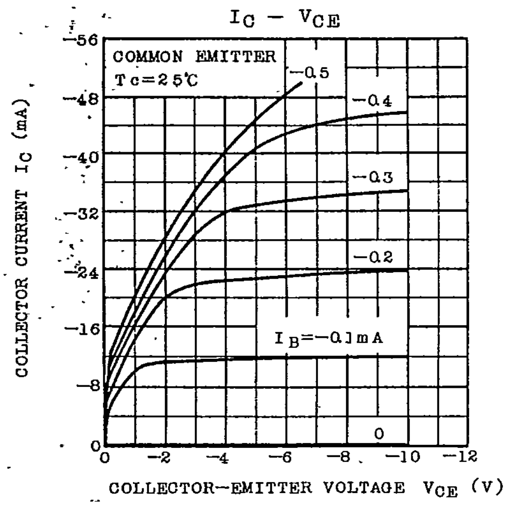
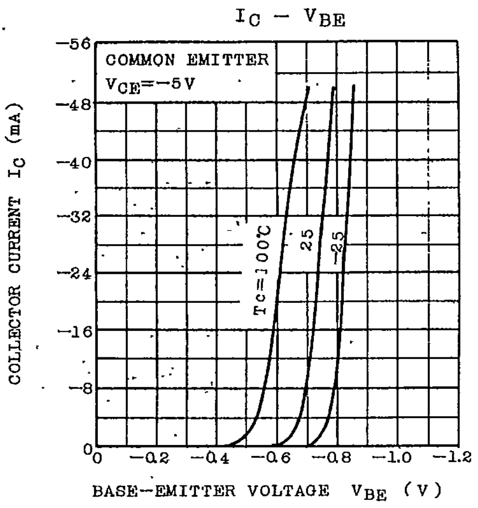
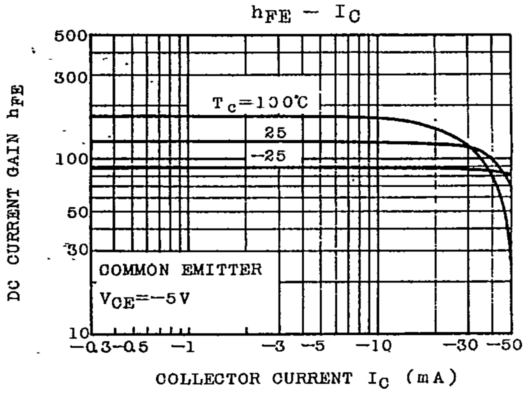
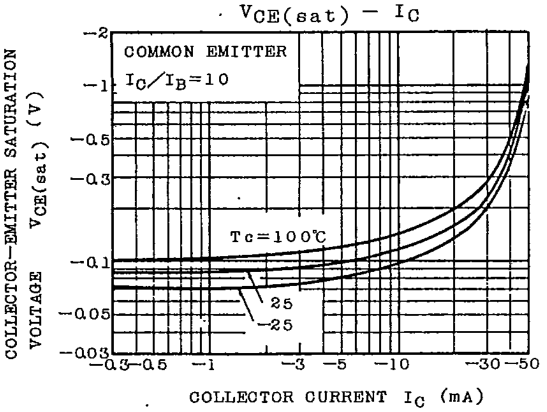
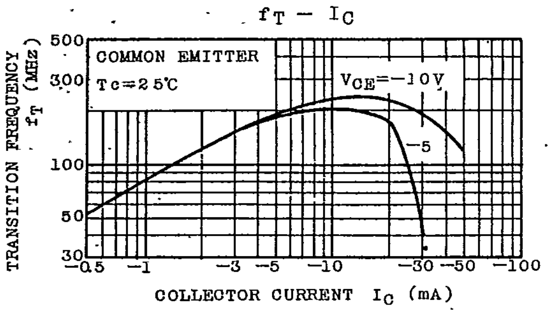
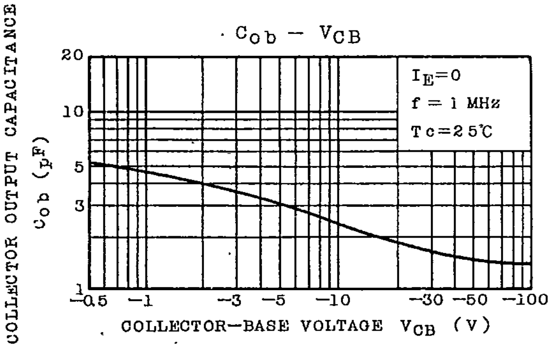

I_C – V_{CE}


I_C – V_{BE}


h_{FE} – I_C


$V_{CE(sat)}$ – I_C


f_T – I_C


C_{ob} – V_{CB}

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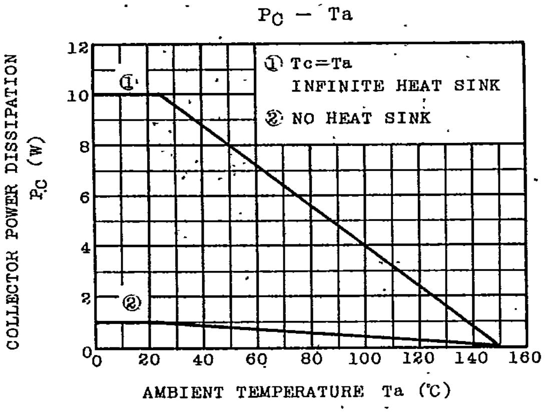
PC — Ta
COLLECTOR POWER DISSIPATION PC (W)
AMBIENT TEMPERATURE Ta (℃)
① Tc=Ta INFINITE HEAT SINK
② NO HEAT SINK
①
②
0
2
4
6
8
10
12
0
20
40
60
80
100
120
140
160