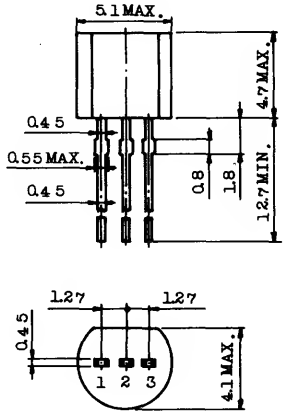
AUDIO FREQUENCY AMPLIFIER APPLICATIONS.
DRIVER STAGE AMPLIFIER APPLICATIONS.

FEATURES:

- High Breakdwon Voltage : V_{CEO}=-80V
- Low Noise Figure : NF=1dB(Typ.), 10dB(Max.)
- Excellent h_{FE} Linearity :
  $h_{FE}(0.1mA)/h_{FE}(2mA)$=0.90(Typ.)
- Complementary to 2SC2868.

Unit in mm



1. EMITTER
2. COLLECTOR
3. BASE

JEDEC	TO-92
EIAJ	SC-43
TOSHIBA	2-5F1B

Weight : 0.21g

MAXIMUM RATINGS (Ta=25°C)

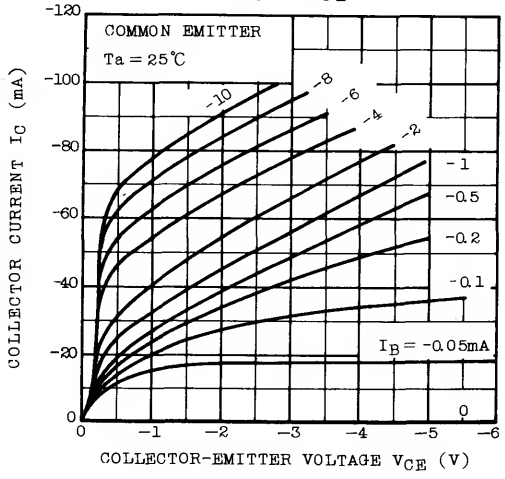
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-80	V
Collector-Emitter Voltage	V_{CEO}	-80	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-100	mA
Base Current	I_B	-50	mA
Collector Power Dissipation'	P_C	400	mW
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	-55 ~ 125	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

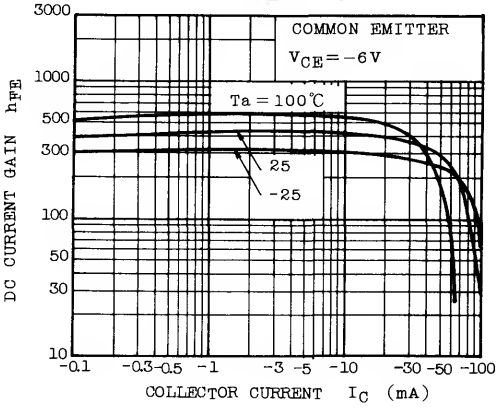
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=-80V, I_E=0	-	-	-100	nA
Emitter Cut-off Current	I_{EBO}	V_{EB}=-5V, I_C=0	-	-	-100	nA
DC Current Gain	h_{FE}	V_{CE}=-6V, I_C=-2mA	120	-	700	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-10mA, I_B=-1mA	-	-	-0.3	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=-10mA, I_B=-1mA	-	-	-1.0	V
Transition Frequency	f_T	V_{CE}=-10V, I_E=2mA	80	-	-	MHz
Output Capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz	-	3.0	7.0	pF
Noise Figure	NF	V_{CB}=-6V, I_C=-0.1mA R_g=10kΩ, f=1kHz	-	1.0	10	dB

Note : h_{FE} Classification Y:120 ~ 240 GR:200 ~ 400 BL:350 ~ 700

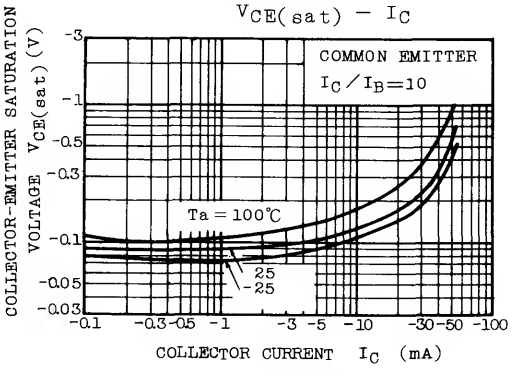
$I_C - V_{CE}$



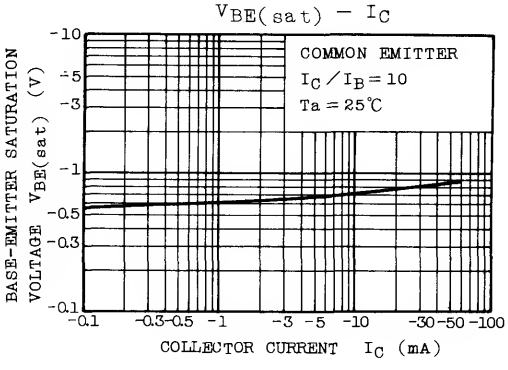
$h_{FE} - I_C$



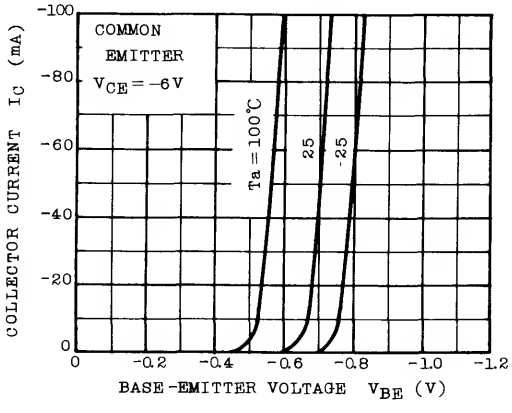
$V_{CE(sat)} - I_C$



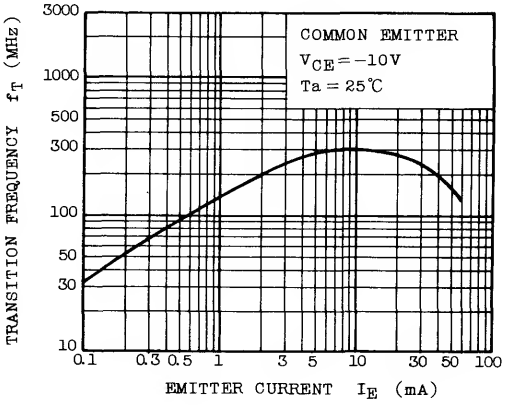
$V_{BE(sat)} - I_C$



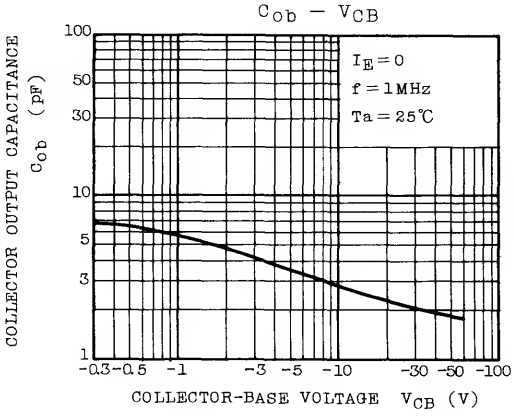
$I_C - V_{BE}$



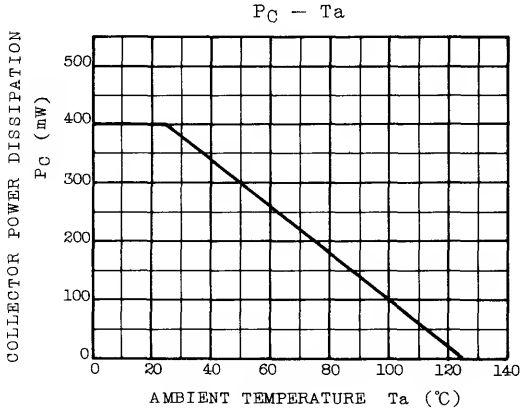
$f_T - I_E$



C_{ob} – V_{CB}


COLLECTOR OUTPUT CAPACITANCE
C_{ob} (pF)
100
50
30
10
5
3
1
$I_E = 0$
f = 1MHz
Ta = 25℃
-0.3 -0.5 -1 -3 -5 -10 -30 -50 -100
COLLECTOR-BASE VOLTAGE V_{CB} (V)

P_C – Ta


COLLECTOR POWER DISSIPATION
P_C (mW)
500
400
300
200
100
0
0 20 40 60 80 100 120 140
AMBIENT TEMPERATURE Ta (℃)