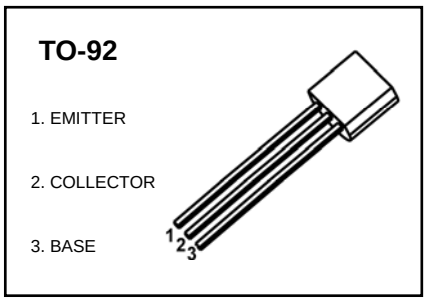
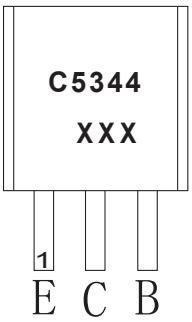
2SC5344 TRANSISTOR (NPN)



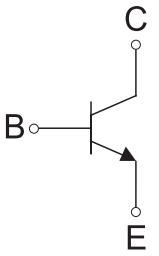
FEATURES

- Audio Power Amplifier Application
- High h_{FE} : h_{FE}=100~320
- Complementary to 2SA1981

MARKING



Equivalent Circuit



ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
2SC5344	TO-92	Bulk	1000pcs/Bag

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

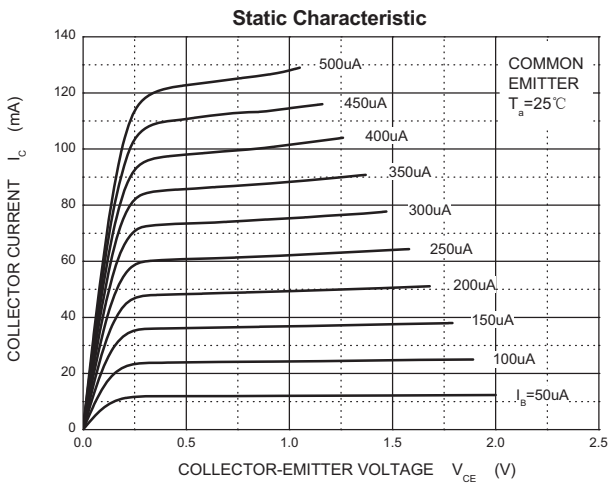
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	35	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	800	mA
P_C	Collector Power Dissipation	625	mW
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

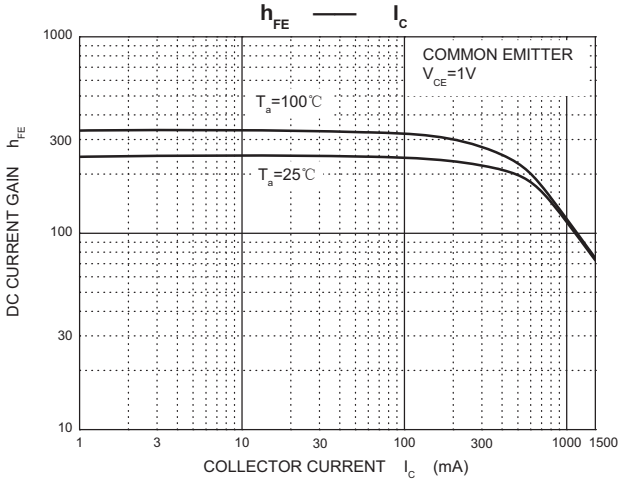
T_a=25℃ unless otherwise specified

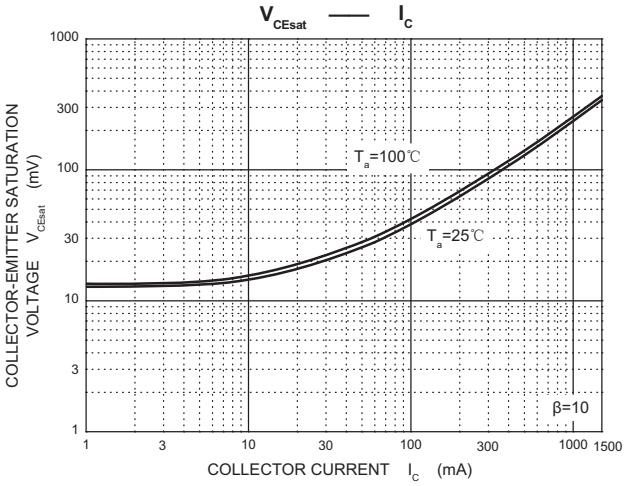
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C = 0.1mA, I_B=0	35			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = 10mA, I_B=0	30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= 0.01mA, I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=35V , I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}= 5V, I_C=0			0.1	μA
DC current gain	h_{FE}	V_{CE}=1V, I_C= 100mA	100		320	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C= 500mA, I_B=50mA			0.5	V
Transition frequency	f_T	V_{CE}=5V, I_C=10mA		120		MHz
Collector Output Capacitance	C_{ob}	V_{CB}=10V,I_E= 0,f=1MHz		13		pF

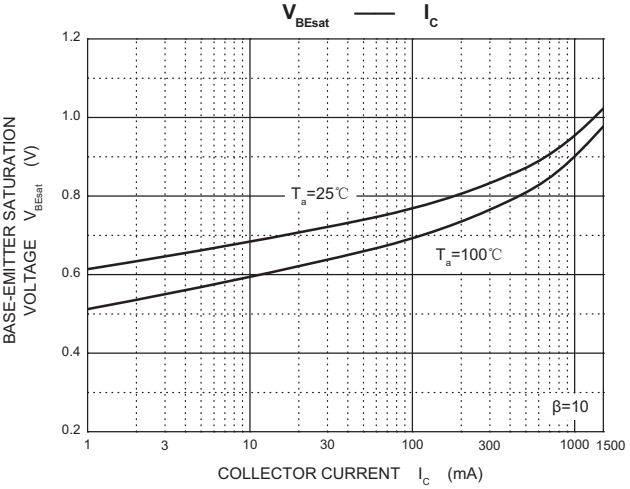
CLASSIFICATION OF h_{FE}

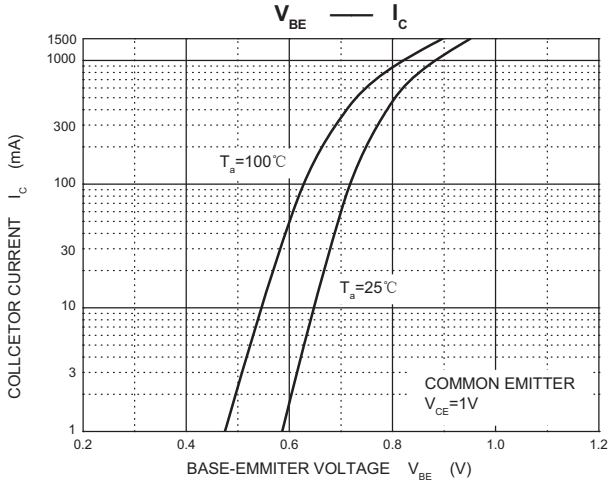
Rank	O	Y
Range	100-200	160-320

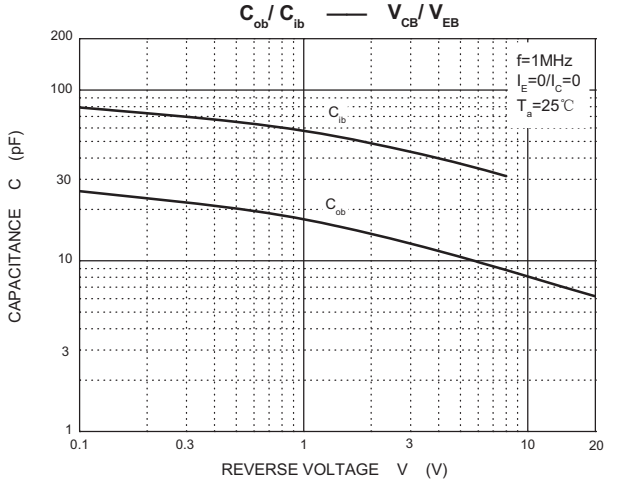

Static Characteristic
COLLECTOR CURRENT I_C (mA)
COLLECTOR-EMITTER VOLTAGE V_{CE} (V)
COMMON EMITTER
T_a=25℃
500uA
450uA
400uA
350uA
300uA
250uA
200uA
150uA
100uA
I_B=50uA

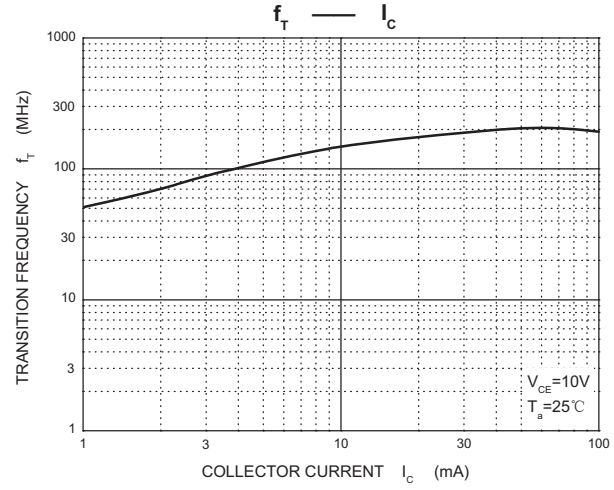

h_{FE} —— I_C
DC CURRENT GAIN h_{FE}
COLLECTOR CURRENT I_C (mA)
COMMON EMITTER
V_{CE}=1V
T_a=100℃
T_a=25℃

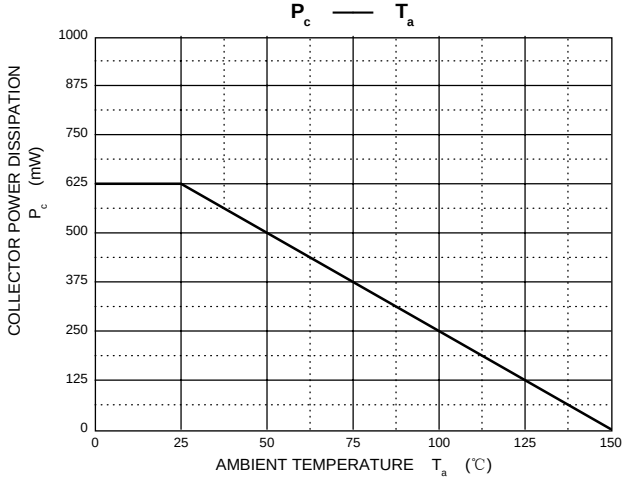

V_{CEsat} —— I_C
COLLECTOR-EMITTER SATURATION VOLTAGE V_{CEsat} (mV)
COLLECTOR CURRENT I_C (mA)
T_a=100℃
T_a=25℃
β=10

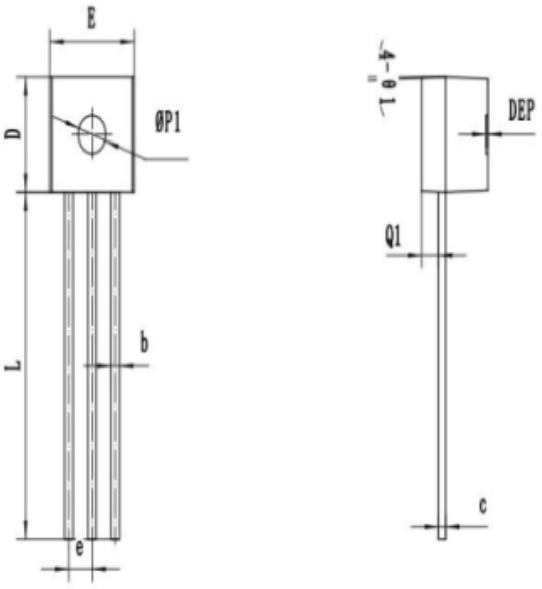

V_{BEsat} —— I_C
BASE-EMITTER SATURATION VOLTAGE V_{BEsat} (V)
COLLECTOR CURRENT I_C (mA)
T_a=25℃
T_a=100℃
β=10

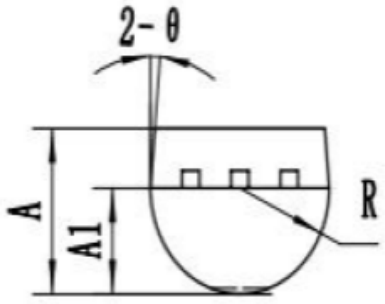

V_{BE} —— I_C
COLLCETOR CURRENT I_C (mA)
BASE-EMMITER VOLTAGE V_{BE} (V)
T_a=100℃
T_a=25℃
COMMON EMITTER
V_{CE}=1V


C_{ob}/ C_{ib} —— V_{CB}/ V_{EB}
CAPACITANCE C (pF)
REVERSE VOLTAGE V (V)
f=1MHz
I_E=0/I_C=0
T_a=25℃
C_{ib}
C_{ob}


f_T —— I_C
TRANSITION FREQUENCY f_T (MHz)
COLLECTOR CURRENT I_C (mA)
V_{CE}=10V
T_a=25℃


P_c —— T_a
COLLECTOR POWER DISSIPATION P_c (mW)
AMBIENT TEMPERATURE T_a (℃)





SYMBOL	MM		
	MIN	NOM	MAX
*A	3.00	3.25	3.50
A1	2.20	2.30	2.40
*b	0.40	0.45	0.50
*c	0.25	0.30	0.35
*D	4.50	4.60	4.70
*E	4.50	4.60	4.70
*e	1.22	1.27	1.32
*L	14.00	14.30	14.60
R	2.20	2.30	2.40
Q1	0.85	0.90	0.95
θ	3°	5°	7°
Ø1	1°	3°	5°
ØP1	1.40	1.50	1.60
DEP	0.05	0.10	0.20
带*为检验尺寸			