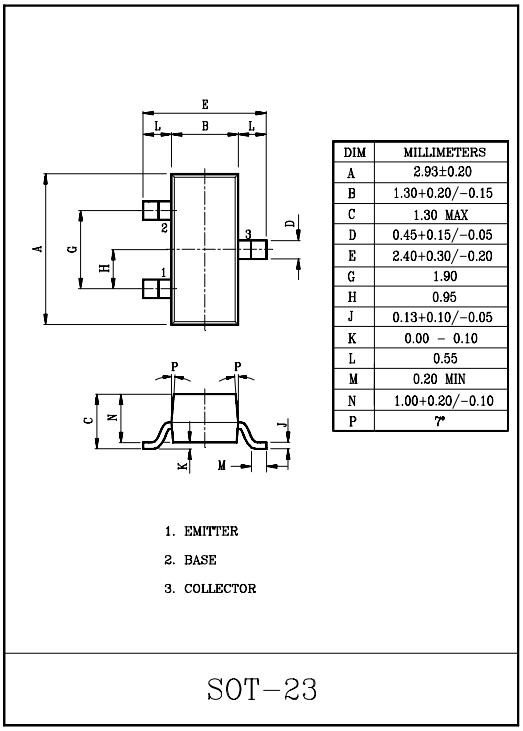
LOW NOISE AMPLIFIER APPLICATION.

FEATURE

- High h_{FE} : h_{FE}=600~3600.
- Noise Figure : 0.5dB(Typ.) at f=100Hz.



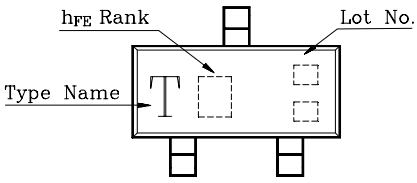
DIM	MILLIMETERS
A	2.93±0.20
B	1.30+0.20/−0.15
C	1.30 MAX
D	0.45+0.15/−0.05
E	2.40+0.30/−0.20
G	1.90
H	0.95
J	0.13+0.10/−0.05
K	0.00 − 0.10
L	0.55
M	0.20 MIN
N	1.00+0.20/−0.10
P	7°

SOT−23

MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	150	mA
Base Current	I_B	30	mA
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55~150	℃

Marking

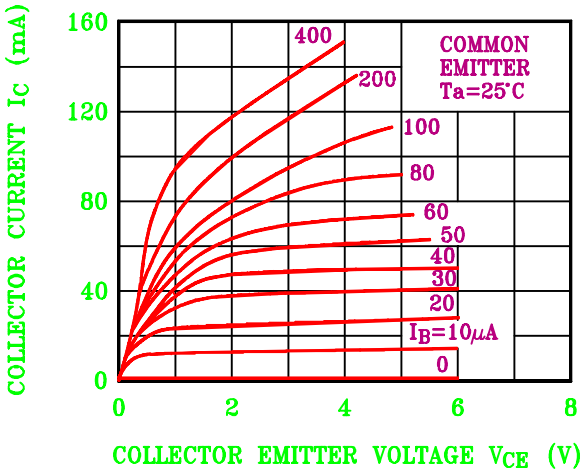


ELECTRICAL CHARACTERISTICS (Ta=25℃)

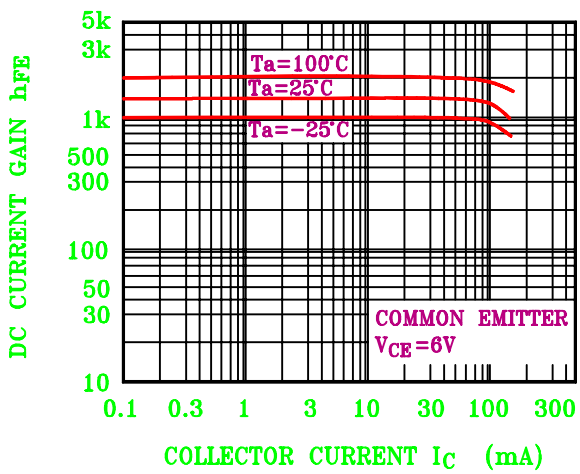
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=50V, I_E=0	-	-	0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=5V, I_C=0	-	-	0.1	μA
DC Current Gain	h_{FE} (Note)	V_{CE}=6V, I_C=2mA	600	-	3600	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=100mA, I_B=10mA	-	0.12	0.25	V
Transition Frequency	f_T	V_{CE}=10V, I_C=10mA	100	250	-	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	-	3.5	-	pF
Noise Figure	NF (1)	V_{CE}=6V, I_C=0.1mA, f=100Hz, Rg=10kΩ	-	0.5	-	dB
	NF (2)	V_{CE}=6V, I_C=0.1mA, f=1kHz, Rg=10kΩ	-	0.3	-	

Note : h_{FE} Classification A:600~1800 , B:1200~3600

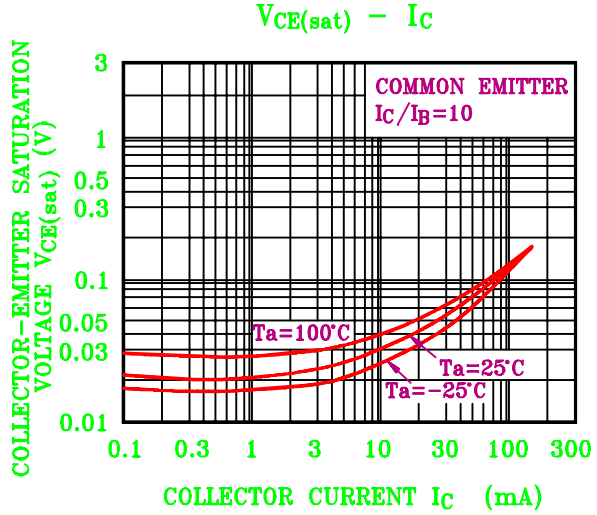
I_C – V_{CE}



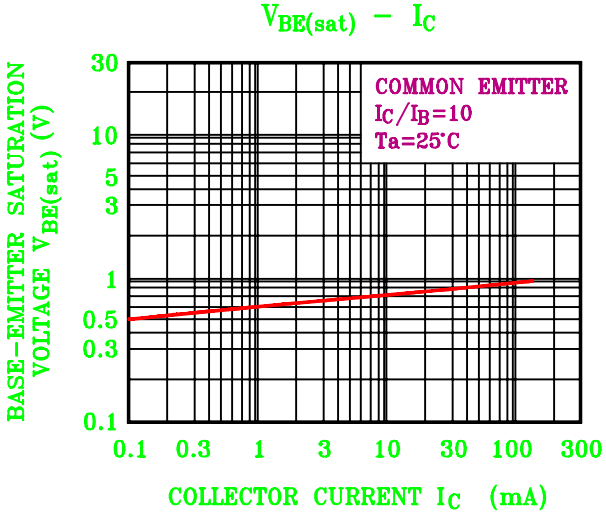
h_{FE} – I_C



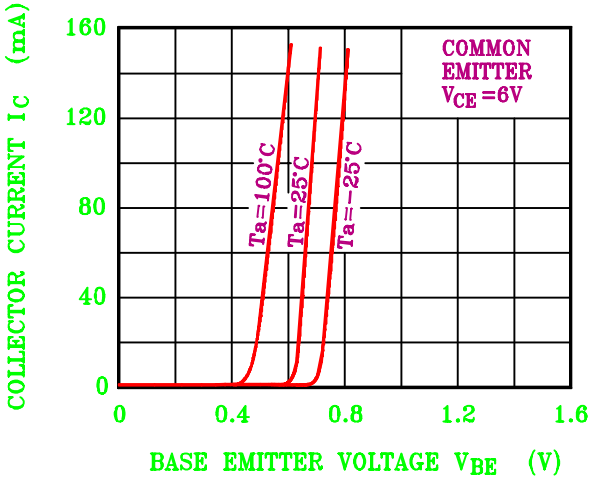
$V_{CE(sat)}$ – I_C



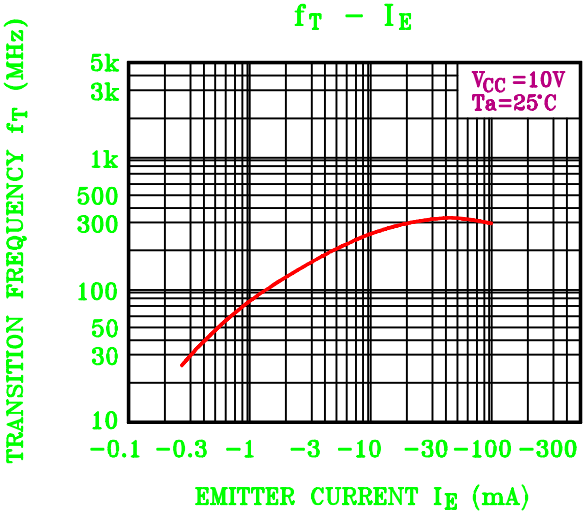
$V_{BE(sat)}$ – I_C

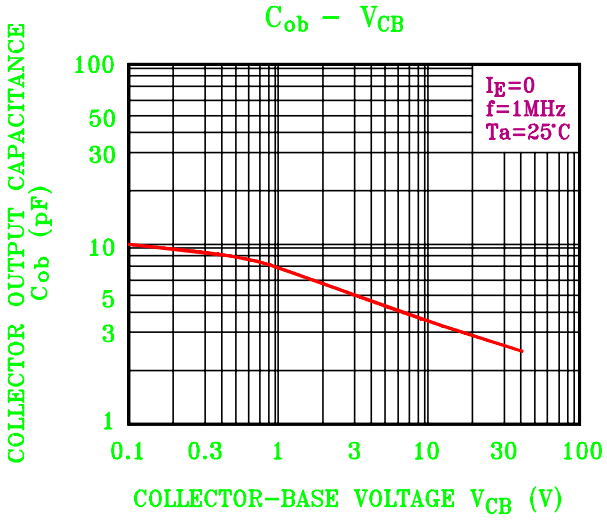


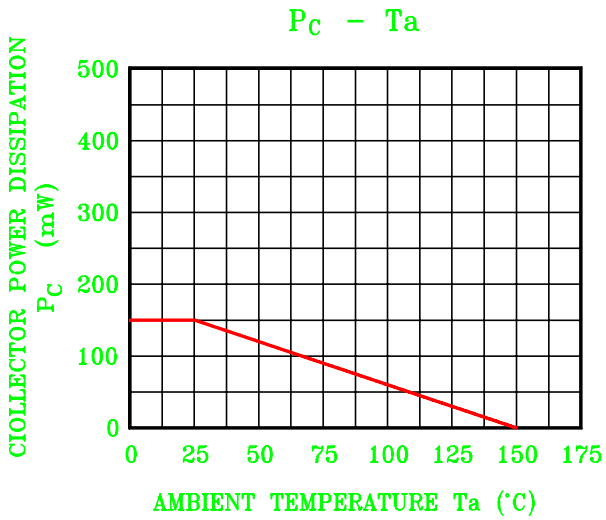
I_C – V_{BE}



f_T – I_E




C_{ob} – V_{CB}
COLLECTOR OUTPUT CAPACITANCE C_{ob} (pF)
100
50
30
10
5
3
1
0.1
0.3
1
3
10
30
100
I_E=0
f=1MHz
Ta=25°C
COLLECTOR-BASE VOLTAGE V_{CB} (V)


P_C – Ta
CIOLLECTOR POWER DISSIPATION P_C (mW)
500
400
300
200
100
0
0
25
50
75
100
125
150
175
AMBIENT TEMPERATURE Ta (°C)